# MINISTRY OF THE INTERIOR, EGYPT.

Department of Public Health. Cairo City Health Inspectorate.

# Report of the Medical Officer of Health, Cairo City,

for the year

1920



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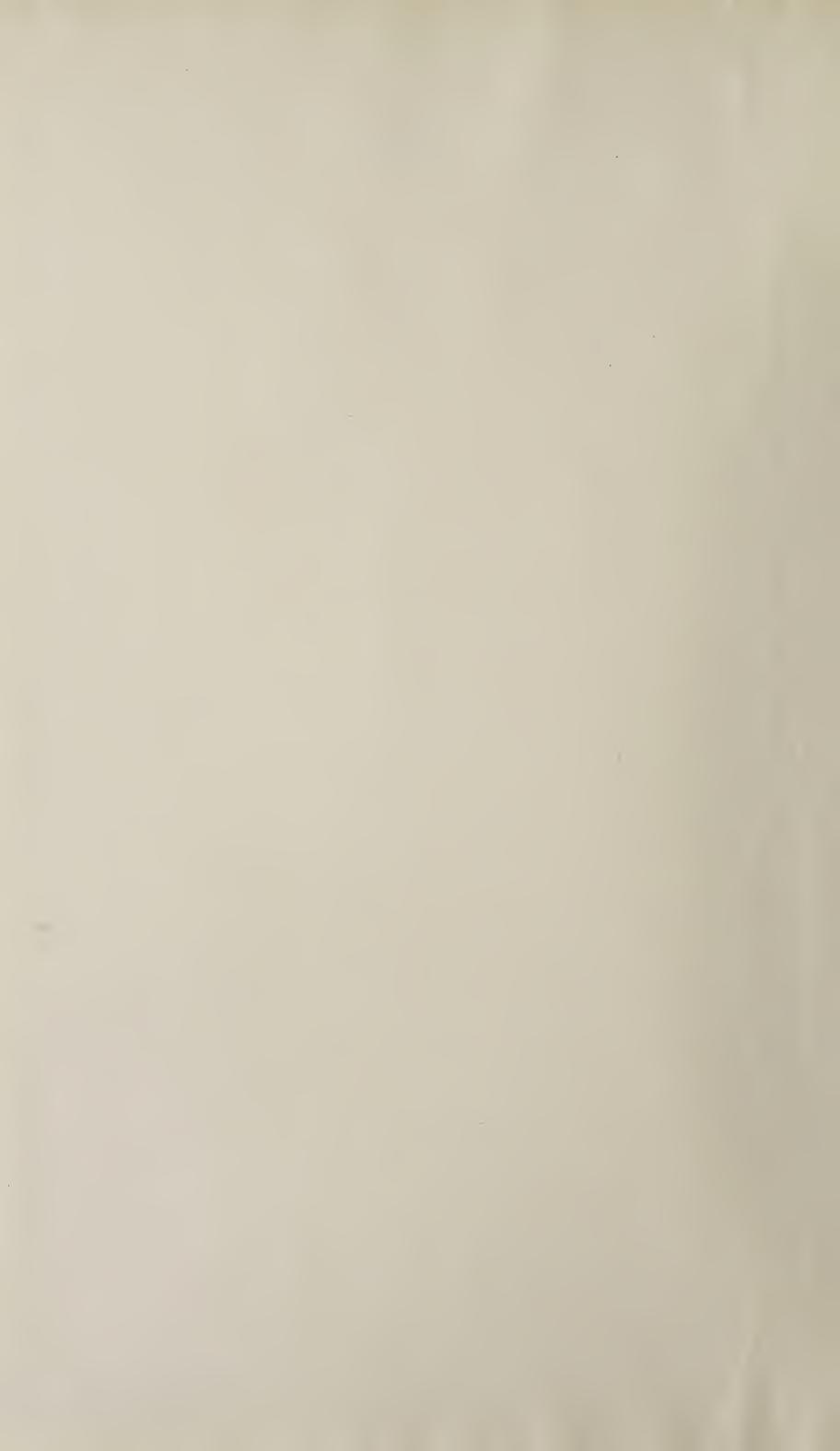
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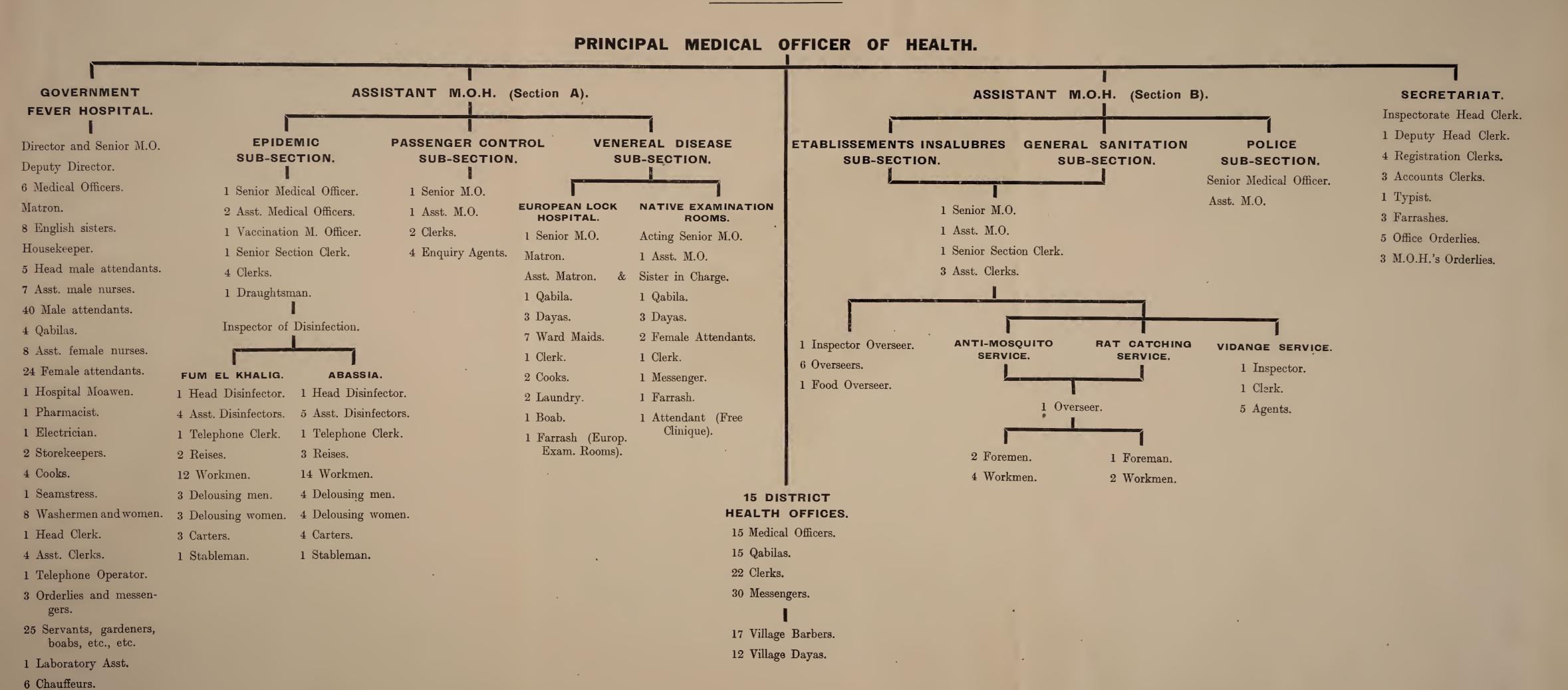
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# ORGANISATION AND STAFF OF CAIRO HEALTH INSPECTORATE.







# Report of the Medical Officer of Health, Cairo City, for the Year 1920.

#### I.—INTRODUCTION.

The scope of the work of the Cairo Health Inspectorate will be gathered from the body of the report. The staff and organization have not hitherto been detailed in any preceding report. It is considered that a description of these would be likely to prove of interest and utility.

The Principal Medical Officer of Health has, as assistants, two Assistant Medical Officers of Health. The work of the Inspectorate is divided into two sections, A and B, each of which is controlled by one of the Assistant Medical Officers who deal with all routine matters concerning their sections, under the direction of the Principal Medical Officer. Important questions and questions of principle concerning these sections are submitted for decision to the Principal Medical Officer who also controls the work of the Secretariat.

The Fever Hospital is under the direct supervision of the Principal Medical Officer of Health.

The District Medical Officers necessarily receive instructions from the Assistant Medical Officers as well as from the Principal Medical Officer of Health.

Section A comprises the sub-sections (1) Infectious Disease and Disinfection; (2) Passenger Control; (3) Venereal Disease and the Lock Hospital for European Women.

Section B consists of the sub-sections (1) Etablissements Insalubres (Sanitary condition of licensed Establishments); (2) General Sanitation, which includes the Vidange Service, Anti-Mosquito Service, and Rat-Catching Service; (3) Police Work.

Each of the sub-sections is in charge of a Senior Medical Officer who has one or more Assistant Medical Officers to help him. Sub-sections (1) and (2) of Section B are, however, in charge of a single senior Medical Officer.

#### Fever Hospital.

A permanent establishment of 550 beds, but during a heavy epidemic season nearly 1,000 patients have been accommodated.

The staff consists of: Director, 7 Medical Officers, Matron, 8 English nursing sisters, housekeeper, 5 head male attendants, 7 assistant male nurses, 40 male ward attendants, 4 qabîlas (Qasr el 'Aini trained Egyptian midwives with nursing experience), 8 assistant female nurses, 24 female ward attendants, 1 mo'âwen, pharmacist, electrician, 2 store-keepers, 4 cooks, 1 seamstress, 8 washer-men and women, 1 head clerk, 4 assistant clerks, 1 telephone operator, 33 orderlies and messengers, 25 servants, gardeners, cooks, etc., etc., 6 chauffeurs (ambulances and car).

During the usual annual epidemic season, February or March to July inclusive, the staff is considerably increased.

Five motor ambulances are provided to convey the sick from the city and suburbs to the hospital.

#### Section A.

#### 1.—Infectious Diseases Sub-section.

Senior Medical Officer, 2 Assistant Medical Officers, and a staff of: 1 Senior Section clerk, 4 clerks, 1 draughtsman who prepares the graphic charts, and 1 enquiry agent

for searching out addresses.

An additional Medical Officer is also attached to this Section whose duty is to make careful observations and reports on the efficacy of newly prepared vaccine lymph. Daily returns of deaths and all notifications of infectious disease are received and necessary action taken by this sub-section. The preparation of statistics and charts of death-rates, of incidence of infectious disease, etc., also form a part of the work.

### Disinfection Service.

Under the direction of the Assistant Medical Officer of Health, this is supervised by an Inspector of disinfection, who, of course, spends the whole of his time in the town.

The Disinfection Stations are two in number and are situated at Abbâsîya and Fum

el Khalig.

Abbâsîya Station is provided with:—

1 travelling and 2 fixed steam disinfection machines, 1 double van, 3 tent carts and an open cart for collecting and returning clothing and bedding. A staff of 6 disinfectors, 30 workmen of various categories, and a telephone clerk perform the work at the station and in the town.

The normal number of gangs for town work is five.

Fum el Khalîg Station is equipped with:—

1 travelling and 1 fixed steam disinfection machines; 2 double vans and 3 tent carts for transport of clothing and bedding.

The staff is composed of 5 disinfectors, 24 workmen, and a telephone clerk, by whom the work of the station and of the town are carried out.

The usual number of town disinfection gangs is four.

During the epidemic season extra men are taken on and the number of gangs increased. Infected clothing, bedding, etc., of all notified cases of infectious disease, is disinfected at one or other of these two stations. The houses of cases are disinfected by the gangs:

#### 2.—Passenger Control Service.

The work of this Service consists in the observation of passengers and contacts of passengers coming from countries contaminated with cholera to whom the terms of the Arrêté of January 21, 1911, are applied.

The Senior Medical Officer visits many of the 1st and 2nd class passengers at their

houses.

Passengers returning from the Sinai Peninsula, Qantara and Qantara District are also observed, in accordance with the provisions of Law No. 3 of 1918.

An Assistant Medical Officer meets the trains that arrive at 5 p.m. and between 11 p.m. and 4 a.m. bringing Labour Corps men and other labourers from Qantara. A mulahiz and four policemen assist this Medical Officer.

In addition to the technical staff mentioned, two clerks and three mulahizeen, whose

duty it is to search out addresses, complete the general staff.

#### 3.—VENEREAL DISEASES.

Native prostitutes are examined weekly under the Arrêté of November 16, 1905, mainly at the Examination Rooms situated at Sharia Gheit el Nubi.

There are two subsidiary examination rooms at Manchiet el Sadr and Sayeda Zeinab respectively. The work is carried on at present by two Egyptian Medical Officers, one of whom is acting as Senior Medical Officer for the being time, a European Sister in charge, 1 qabîla (Qasr el 'Aini trained Egyptian midwife), 3 dayas (ordinary midwives), 2 female attendants, 1 messenger, 1 farrash, and 1 clerk. The sick are sent to Hôd el Marsûd Hospital (administered by the Director of Qasr el 'Aini Hospital).

Certain European prostitutes are examined weekly by a European Medical Officer under an arrangement with the Foreign Consuls. Others are allowed to send in certificates—obtained from private doctors—of freedom from illness. The Examination Rooms are situated in the Ezbekîya District.

Shubra Lock Hospital, to which these European women are sent when ill, is in charge of the Medical Officer of the European Examination Rooms. The staff consists of an English Matron, the sister in charge of the Native Examination Rooms who replaces the Matron during her afternoons off duty, 1 qabîla, 3 dayas, 7 ward maids, 2 cooks, 2 washers, 1 clerk who acts also as clerk of the European Examination Rooms, and one gate-keeper.

#### Section B.

A Senior Medical Officer and one assistant comprise the technical staff and a senior section clerk with three assistants the clerical staff of the whole Section B, except as regards Medico-legal and Police work.

#### 1.—Etablissements Incommodes, Insalubres et Dangereux.

All applications for establishments mentioned in the Schedule of the Decree of 1904, Etablissements Incommodes, Insalubres et Dangereux, are dealt with by this sub-section.

The inspectional staff consists of 6 Moaweneen (overseers) and an Inspector of foods-stuffs. These Moaweneen are put in charge of districts, and it is the duty of each to inspect every licensed establishment in his district and to report daily to the Inspectorate the result of his inspections.

Action is taken by the Inspectorate through the District Medical Officer when found necessary.

#### 2.—General Sanitation Sub-Section.

All complaints received are passed to the sub-section for necessary action.

Vidange Service also forms a part of this sub-section.

The work of this Service consists in the inspection of cesspits and supervision of emptying by the Cairo Sewage Transport Company.

A staff of one Inspector, 5 Vidange agents and 1 clerk is employed.

The inspector also acts as Inspector of the Waqfs Market at Ataba el Khadra, the largest market in Cairo.

### Anti-Mosquito Service.

The staff consists of two gangs of a foreman and two workmen to each gang. The scope of the work is mentioned on pages 48–50. An overseer supervises the work of this Service.

#### Rat-Catching Service.

Staff of a foreman and two workmen.

#### 3.—Medico-Legal and Police Work.

But little connected with this branch finds its way up to the Inspectorate. Returns and reports are received, but all other work is necessarily done by the Principal Medical Officer of Police and his assistant at the Governorate.

The duties of the Police Medical Officer consist of the examination and the writing of reports on all medico-legal cases, making autopsies when requested to do so by the Parquet; examinations of alleged lunatics, of candidates for entry into the service as ghafirs, of sick policemen and ghafirs; vaccination of police and ghafirs; treatment of police and ghafirs received into the Police Infirmary, etc., etc. (see p. 47).

#### Secretariat.

The work of the Secretariat is carried out under the direct supervision of the Principal Medical Officer of Health and consists of general administration, personnel, discipline, accounts, registration of incoming and outgoing correspondences, translation, typewriting of reports, etc.

The staff is composed of the Head Clerk of the Inspectorate who holds the rank of a Sous-Chef de Bureau, Deputy Head clerk, 4 Accounts clerks, 4 Registration clerks, 1 typist, 3 farrashes, 5 office orderlies and messengers, and 3 orderlies of the Medical

Officers of Health.

## QISM (DISTRICT) HEALTH OFFICES.

The fifteen Qisms of Cairo are: Zeitûn, Abbâsîya, Shubra, Bulâq I, Bulâq II, Ezbekîya, 'Abdîn, Musky, Bâb el Sha'rîya, Gamâlîya, Darb el Ahmar, Khalîfa, Sayeda Zeinab, Old Cairo, and Helwân.

Each possesses a staff of one Medical Officer, one  $qab\hat{\imath}la$ , a clerk (seven Qisms have two clerks each) and two messengers. 17 village barbers and 12 village dayas work at their villages under the control of the Medical Officers of Helwân, Old Cairo, and Zeitûn Qisms.

The work of the Qism Medical Officer consists of:—

Registration of births and deaths, vaccination, general supervision of work connected with disinfection and removal of patients to the Fever Hospital, examination of deaths not certified, inspection and reports on establishments mentioned in the Schedule of the Decree of 1904 (Etablissements Incommodes, Insalubres et Dangereux) for which application for licences have been made and all executive work in connection with these establishments after the issue of licences, making *procès-verbaux* of contravention for breach of any sanitary laws, etc., etc., etc. In short, all the sanitary work of his district is performed by the Qism Medical Officer.

Each Qism Medical Officer also takes one night duty a fortnight at the Governorate

as Police Medical Officer.

The graphic chart forming the frontispiece of the report will be of assistance in following this description.

The want of a proper inspectorate building is very much felt. The staff is housed in hired premises. During the past ten years three moves have been made. Some of the premises have been suitable and some have not. The result is that the public is, as a rule, ignorant as to the whereabouts of the Inspectorate, a condition of affairs that must be conceded as being unsatisfactory. A central position is essential and a site has been provisionally selected on the line of the Old Ismailia Canal, but hitherto funds have not been forthcoming for the construction. It is hoped that the erection of a proper building will not be much longer delayed.

#### II.—VITAL STATISTICS.

## (a) POPULATION.

It was estimated by the Statistical Department at the beginning of the year that the mid-year population of Cairo in 1920 would be 761,300, consisting of 688,530 Egyptians and 72,770 foreigners. The district distribution of the population has been calculated as follows:—

'Abdîn District 61,200, Bâb el Sha'ıîya 65,000, Bulâq 92,700, Darb el Ahmar 68,600, Ezbekîya 57,700, Gamâlîya 62,700, Helwân 11,400, Khalîfa 54,300, Musky 23,900, Old

Cairo 32,500, Sayeda Zeinab 72,700, Shubra 83,300, Waili 75,300.

This estimate must be considerably below the true figure, for, were this correct, the population would have diminished by 387 since the census of 1917. It is a fact, however, that never has Cairo been so crowded as in 1920. Vacant houses and flats have been generally unobtainable. This crowding has been due in part to cessation of building during the war and in part to the normal tendency to immigration from rural districts into towns. The last-mentioned factor received a powerful impetus from the unexampled prosperity of the country during 1920 resulting in a great influx of provincials who bought houses in Cairo and came there to live. In arriving at the estimate above mentioned, immigration and emigration are left out of consideration except in the figure taken to represent the probable increase during the first six months of the year.\*

Another factor in producing too low an estimated population is the fact that deaths of non-residents have been included in the figure for deaths since 1917. These deaths

should properly be excluded from Cairo deaths.

Arrangements are being made that in future the Statistical Department should be

supplied with figures of deaths of non-residents so that these may be omitted.

Whatever means are taken to exclude errors, however, it is unlikely that a close estimate of population could be arrived at, for the influence of the war has been such that calculations based on normal warrs as were those of 1007, 1017, and likely that a close estimate

based on normal years as were those of 1907-1917 are likely to prove fallacious.

The charts and diagrams must therefore be taken as being a mere approximation to fact, but the graphic errors resulting from too high a mortality and too high an incidence of infectious disease—the effect of too low a figure for population—tend to correspond with those found in previous reports, with the charts and diagrams of which these therefore are comparable.

The village of Kafr el Gamûs, population 1,200, has, this year, been detached from the

Mudîrîya of Qalyûbîya and included within the circumscription of Cairo.

As has been stated in the report of 1915 and 1916, in addition to the "lesser Helwân, entirely under the Public Health Administration of this city, there exists also a greater Helwân, embracing the lesser together with an additional area, attached to the city for all public health purposes, except the registration of births and deaths."

The population of this greater Helwân at mid-year 1920 has been estimated as 24,641. The total population of Cairo, including Greater Helwân, would therefore be 785,941, upon which figure zymotic diagrams are based.

# BIRTHS.

There were 35,984 bitrhs in Cairo during 1920, of which 35,328 were among natives and 656 among foreigners.

This total shows an increase of 4,010 births over the total of 1919, and is, moreover, the largest number of births which has occurred in any year for the last seven years at least.

The annual birth-rate was therefore 47.3 per thousand of population as against 42.0 in 1919.

<sup>\*</sup> The method employed by the Statistical Department in calculating the population is as follows:—

The population at the end of 1918 is taken and the difference between the number of births and deaths during 1919 is added thereto or subtracted therefrom according as births or deaths predominate.

The result is considered as being the population at the end of 1919.

To this is added half the coefficient (arithmetical mean) of the annual increase for the decennial period of the last census 1907–1917. The figure thus obtained is taken to give the population for mid-year 1920.

The mean annual birth-rate during the last five years was 42.0 per thousand, the highest rate during this period being during the present year, whilst the lowest occurred in 1917 which was 35.8.

The highest district birth-rate was in Bulâq with 59.5 per thousand of population and the lowest in Ezbekîya with 33.1.

Table I.—District Annual Births and Birth-Rates per Thousand of Population.

|   |       | 19   | 20   | 19  | 19   | 19:  | 18   |
|---|-------|--|--|---|--|--|--|
| DISTRICT.   |       | No. of<br>Births.  | Rate.  | No. of<br>Births.   | Rate.  | No. of<br>Blrths.  | Rate.  |
| Ezbekîya Helwân 'Abdîn Mûsky Darb el Ahmar Wâyli Bâb el Sha'rîya                                    |       | 1,908<br>386<br>2,248<br>902<br>2,929<br>3,273<br>3,175                            | 33·1<br>33·8<br>36·7<br>37·7<br>42·7<br>43·5<br>48·8 | 1,751<br>338<br>2,073<br>824<br>2,556<br>2,948<br>2,716                           | 30.5<br>29.9<br>33.7<br>34.5<br>37.1<br>39.5<br>41.5 | 1,540<br>323<br>1,841<br>698<br>2,298<br>2,609<br>2,447                            | 27 · 2<br>28 · 9<br>30 · 0<br>29 · 6<br>34 · 4<br>35 · 1<br>37 · 2 |
| Shubra          Saiyeda Zeinab          Gamâlîya          Khalîfa          Old Cairo          Bûlâq | •••   | $\begin{bmatrix} 4,090 \\ 3,657 \\ 3,186 \\ 2,884 \\ 1,832 \\ 5,514 \end{bmatrix}$ | 50.3<br>49.1<br>50.8<br>53.1<br>56.4<br>59.5         | $\begin{array}{c} 3,549 \\ 3,286 \\ 2,800 \\ 2,472 \\ 1,711 \\ 4,950 \end{array}$ | 42.8<br>44.3<br>44.7<br>45.6<br>52.5<br>53.7         | $\begin{bmatrix} 3,083 \\ 2,820 \\ 2,512 \\ 2,154 \\ 1,532 \\ 4,190 \end{bmatrix}$ | 37·8<br>37·1<br>40·4<br>39·7<br>46·3<br>44·8                       |
| Total Cairo City  | • • • | 35,984   | 47.3   | 31,974  | 42.0   | 28,047   | 36.9   |

Still Births.—During 1920 there occurred 1,339 still births, as against 1,215 in 1919 and 1,226 in 1918.

Of this total 1,321 were among natives and 18 of foreign parentage.

This gives a rate of 3.7 still births per 100 births as against 3.8 per cent in 1919 and 4.4 per cent in 1918.

Still births are registered in the birth registers but are not registered in the death registers.

#### DEATHS.

The mortality during 1920 was small. The total number of deaths which occurred in Cairo was 28,701, of which 1,082 were deaths of non-residents. Therefore the total of Cairo proper was 27,619 which, with the exception of 1917 when the number was 26,804, is the lowest during the last six years.

The annual death-rate was therefore 36·3 per thousand of population, as against 41·4 in 1919 and 49·4 in 1918.

Of the total deaths of Cairo residents 26,669 were native deaths and 950 foreign.

The mean annual death-rate during the last five years was 40.5 per thousand of population, the highest rate during this period being 49.4 in 1918 and the lowest in 1917 with 35.8.

The highest district rate occurred in Bulâq with 44.6, and the lowest rate was in Helwân, being 27.0.

TABLE II.—DISTRICT DEATHS AND DEATH-RATES PER THOUSAND OF POPULATION.

|                              | -     |       |       |       |       |       |       | 19                | 20           | 19:            | 19     | . 19:          | 18     |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------------------|--------------|----------------|--------|----------------|--------|
|                              | Dī    | STRIC | et.   |       |       |       |       | No. of<br>Deaths. | Ratio.       | No. of Deaths. | Ratio. | No. of Deaths. | Ratio. |
| Helwân                       |       |       |       | • • • | • • • |       |       | 308               | 27.0         | 268            | 23.7   | 412            | 36.8   |
| Ezbekîya                     | • • • |       |       |       | • • • |       |       | 1,596             | 27.7         | 1,550          | 27.0   | 1,915          | 33.8   |
| <b>A</b> bdîn                |       | • • • | • • • |       |       | • • • |       | 1,861             | 30.4         | 2,339          | 28.0   | 2,438          | 39.8   |
| Mûsky                        |       | • • • |       | •••   | • • • | • • • |       | 769               | $32 \cdot 2$ | 856            | 35.9   | 843            | 35.7   |
| Shahno                       |       |       |       |       | • • • |       |       | 2,771             | 33.3         | 3,151          | 38.0   | 4,024          | 49.3   |
| Darb el Ahmar                | • • • |       |       |       | • • • | • • • |       | 2,334             | 34.0         | 2,885          | 41.9   | 3,120          | 46.7   |
| Gamâlîya                     |       | • • • | • • • |       |       | • • • |       | 2,243             | 35.8         | [2,876]        | 45.9   | [-3,095]       | 49.8   |
| Bâb el Sha <sup>c</sup> rîya |       | •••   |       |       |       |       |       | 2,377             | 36.6         | [-3,159]       | 48.3   | [-3, 162]      | -48.1  |
| Wâyli                        |       | • • • |       | • • • | • • • | • • • |       | 2,760             | 36.6         | 2,776          | 37.1   | [-3,675]       | 49.5   |
|                              | • • • | • • • |       |       |       |       |       | 2,736             | 37.6         | 3,067          | 41.4   | [-3,700]       | 48.7   |
| Khalîfa                      |       |       |       |       |       |       |       | 2,298             | $42 \cdot 3$ | 2,301          | 42.5   | 3,146          | 58.0   |
| Old Cairo                    |       | • • • |       |       |       |       |       | 1,431             | 44.0         | 1,741          | 53.4   | [2,091]        | 63.5   |
| Bûlâq                        |       |       | • • • | • • • | • • • | •••   | • • • | 4,135             | 44.6         | 4,578          | 49.6   | [5,947]        | 63.6   |
|                              | T     | OTAL  | Ca    | IRO   | Сіту  |       |       | 27,619            | 36.2         | 31,547         | 41.4   | 37,568         | 49.4   |

The population of Bulâq and Old Cairo are poorer than those of any of the other Qisms. Chart I shows the maximum, minimum and mean weekly death-rates for the period 1915–1919, together with the weekly death-rates for 1920 per thousand of population.

#### Infantile Mortality.

The total number of infantile deaths during 1920 was 9,342. This includes 178 deaths of children from outside Cairo which occurred in various public institutions. The total deaths belonging to Cairo proper was 9,164, which is equal to a death-rate of 255 per thousand births as compared with 238 in 1919 and 329 in 1918. The main cause of the infantile deaths was diarrhoea which was very prevalent during the hot weather. This disease accounted for 3,595 deaths.

The mean annual infantile death-rate during the last five years was 241 per thousand births, the highest rate during this period being 329 in 1918, and the lowest 238 in 1919.

The highest district death-rate was 301 in Old Cairo, and the lowest 204 in Musky (Table III). There were 9,087 native deaths and 877 foreign.

TABLE III.—DISTRICT INFANTILE DEATH-RATES PER THOUSAND BIRTHS.

|                 |       | Dı    | STRI  | CT.   |       |       |       |       |       |         | 1920              | 1919              | 1918 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------------------|-------------------|------|
| Mûsky           | •••   | •••   | • • • | •••   | • • • | •••   | •••   | • • • | • • • | • • • • | 204               | 190               | 216  |
| Helwân          | •••   | • • • | • • • | • • • | • • • | • • • | • • • | • • • | • • • |         | 212               | 165               | 232  |
| Gamalîya        | • • • | • • • | • • • | • • • |       | • • • | • • • | • • • |       |         | 223               | 232               | 308  |
| Ezbekîya        |       |       | • • • | • • • | • • • |       | • • • |       | • • • |         | 229               | 180               | 251  |
| Khalîfa         |       | • • • | • • • | • • • |       |       | • • • |       |       |         | 236               | 255               | 338  |
| Saiyeda Zeinab  |       |       |       |       | • • • |       |       | • • • |       |         | 239               | 208               | 321  |
| 'Abdîn          |       |       |       |       |       |       |       |       |       |         | 246               | 235               | 317  |
| Bâb el Sha'rîya |       | • • • | • • • | • • • |       |       |       |       |       |         | 248               | 268               | 323  |
| Shubra          | • • • |       | • • • |       |       | • • • |       |       |       |         | 257               | 235               | 344  |
| Darb el Ahmar   | • • • | •••   |       |       |       |       |       |       |       |         | $\frac{265}{265}$ | $\frac{245}{245}$ | 322  |
| W/\$1:          |       |       | • • • | • • • | • • • | • • • | • • • | •••   | • • • | • • •   | $\frac{200}{272}$ | 252               | 315  |
| TD 414          | • • • | •••   | • • • | • • • | • • • | • • • | • • • | •••   | • • • | • • •   | 288               | $\frac{232}{242}$ | 374  |
| 014 Ô.:         | • • • | • • • | • • • | • • • | * * * | • • • | • • • | • • • | • • • | •••     |                   |                   | 423  |
| Old Cairo       | •••   | •••   | •••   | • • • | • • • | • • • | • • • | • • • | • • • | •••     | 301               | 252               | 420  |
|                 |       |       |       | Г     | COTA  | l Ca  | IRO   | Сіту  |       | • • •   | 255               | 238               | 329  |

Chart II shows the weekly infantile death-rates per hundred births for 1920 as compared with the maximum, minimum, and mean weekly rates for the period 1915–1919.

Chart III shows the principal causes of infantile deaths in 1920.

TABLE IV.—Comparative Mid-Year Populations and Vital Statistics of Cairo 1911 to 1920.

|  | Population.  | Number of Deaths.   | Death-rate per Thousand of Population.   | Infantile<br>Deaths.   | Infantile Death-rate per Thousand Births.                          | Number of Births.  | Birth-rate per Thousand of Population.  |
|--|--|---|--|--|--|--|---|
| 1911<br>1912<br>1913<br>1914<br>1915<br>1916<br>1917<br>1918<br>1919 | 693,806<br>704,956<br>715,609<br>725,670<br>733,423<br>740,000<br>749,000<br>760,008<br>761,525<br>761,300 | $\begin{array}{c} 27,981 \\ 26 \cdot 385 \\ 26,413 \\ 26,128 \\ 32,554 \\ 28,320 \\ 26,804 \\ 37,568 \\ 31,547 \\ 27,619 \end{array}$ | $\begin{array}{c} 40 \cdot 3 \\ 37 \cdot 4 \\ 36 \cdot 9 \\ 36 \cdot 0 \\ 44 \cdot 3 \\ 38 \cdot 3 \\ 35 \cdot 8 \\ 49 \cdot 4 \\ 41 \cdot 4 \\ 36 \cdot 3 \\ \end{array}$ | $10,414$ $9,549$ $9,250$ $8,875$ $9,592$ $9,208$ $8 \cdot 248$ $9,242$ $7,621$ $9,164$ | 323<br>303<br>292<br>283<br>320<br>295<br>262<br>329<br>238<br>255 | 32,195<br>31,555<br>31,599<br>31,314<br>29,933<br>31,170<br>31,442<br>28,047<br>31,974<br>35,984 | $46 \cdot 4$ $44 \cdot 8$ $44 \cdot 1$ $43 \cdot 1$ $40 \cdot 8$ $42 \cdot 1$ $42 \cdot 0$ $36 \cdot 9$ $42 \cdot 0$ $47 \cdot 3$ |

The figure for the population of 1917, viz. 749,000, was estimated by the Statistical Department at the beginning of 1917, and as it is upon this figure that all the charts and diagrams of the annual report of 1917 were based, it has been inserted in the Table IV.

A later estimate made in 1918 gives the population as 761,687.

The subsequent figures for populations of 1919 and 1920 are based upon a 1917 population of 761,687.

Table V shows the mid-year populations and vital statistics of the various districts

of Cairo for the year 1920.

Table V.—Population and Vital Statistics in Cairo and its Quarters in 1920.

| DISTRICT.              | Population.   | Number of Deaths.   | Death-rates<br>per Thousand<br>of Population.  | Number of Births.   | Birth-rate<br>per Thousand<br>of Population.   | Number of Infantile Deaths (0-1 Year).  | Infantile<br>Mortality<br>Rate per Thou-<br>sand Births.                                |
|------------------------|---|---|--|---|--|---|---|
| Mûsky                  | 72,700 $54,340$ $11,400$ $68,600$ $62,70$ $83,300$ $92,700$ $32,50$ | 769 2,377 1,596 1,861 2,736 2,298 308 2,334 2,243 2,771 4,135 1,431 2,760 | 32·2<br>36·6<br>27·7<br>30·4<br>37·6<br>42·3<br>27·0<br>34·0<br>35·8<br>33·3<br>44·6<br>44·0<br>36·6 | 902<br>3,175<br>1,908<br>2,248<br>3,657<br>2,884<br>386<br>2,929<br>3,186<br>4,090<br>5,514<br>1,832<br>3,273 | 37·7<br>48·8<br>33·1<br>36·7<br>49·1<br>53·1<br>33·8<br>42·7<br>50·8<br>50·3<br>59·5<br>56·4<br>43·5 | $   \begin{array}{c}     184 \\     787 \\     438 \\     553 \\     875 \\     682 \\     82 \\     775 \\     710 \\     1,050 \\     1,587 \\     552 \\     889   \end{array} $ | 204<br>258<br>229<br>246<br>239<br>236<br>212<br>265<br>223<br>257<br>288<br>301<br>272 |
| Wâyli Totals for Cairo |   | 27,619  | 36.3   | 35,984  | 47:3   | 9,164   | 255   |

## III.—INFECTIOUS DISEASES.

The total number of cases of infectious diseases notified during 1920 was 6,959, excluding those coming from outside Cairo. Considering that 1,564 of the total are cases of influenza which was added to the list of notifiable diseases in August 1919, the year 1920 compares very favourably with the previous six years.

The total number of the eight principal diseases was 4,838, this being the lowest

total (excepting 1917) during the last seven years.

The number of deaths from these diseases was 1,493.

Therefore the rate per thousand of population for these diseases was 6·155 cases recorded, whilst the death-rate was 1·899 per thousand.

See Tables VI, VII (with Fig. 1), VIII, and IX.

TABLE VI.—INFECTIOUS DISEASES, 1914 TO 1920.

| YEAR.  | Eight Principal<br>Diseases.   | Other Infectious Diseases.                      | Total Number of Notifiable Diseases.                        | Deaths from the Eight Principal Diseases.                   | Eight Principal Diseases per Thousand of Population.    | Death-rate per<br>Thousand of Popu-<br>lation of the Eight<br>Principal Diseases.          |
|--|--|---|---|---|---|--|
| 1914<br>1915<br>1916<br>1917<br>1918<br>1919<br>1920 | 4,878<br>5,744<br>6,771<br>4.304<br>8,268<br>9,164<br>9,164<br>4,838 | 405<br>409<br>412<br>672<br>614<br>708<br>2,121 | 5,283<br>6,153<br>7,183<br>4,976<br>8,882<br>9,872<br>6,959 | 1,610<br>2,365<br>2,836<br>1,608<br>3,397<br>3,970<br>1,493 | 6,722 $7,831$ $9,150$ $5,746$ $10,535$ $11,659$ $6,155$ | $\begin{array}{c} 2,218 \\ 3,224 \\ 3,832 \\ 2,146 \\ 4,328 \\ 5,051 \\ 1,899 \end{array}$ |

With the exception of measles, the amount of infectious disease that occurred was comparatively small.

The annual summer epidemic of typhus, which had been very severe during the two previous years, was much lighter than usual.

There was also a diminution in the amount of typhoid fever.

TABLE VII.—ZYMOTIC DISEASE CASE- AND DEATH-RATES IN 1910.

| DISTRICT.  | Population.  | Number of<br>Cases<br>recorded.   | Cases recorded per Thousand of Population.  | Number of Deaths.  | Death-rate<br>per Thousand<br>of Population.  | Ratio of Deaths to Cases recorded.  |
|--|--|---|---|--|---|---|
| Mûsky Bâb el Sha <sup>c</sup> rîya Ezbekîya 'Abdîn Saiyeda Zeinab Khalîfa Helwân Darb el Ahmar Gamâlîya Shubra Bûlâq Old Cairo Wâyli | 23,900<br>65,000<br>57,700<br>61,200<br>72,700<br>54,300<br>36,041<br>68,600<br>62,700<br>83,300<br>92,700<br>32,500<br>75,300 | 169<br>253<br>454<br>457<br>553<br>290<br>174<br>499<br>175<br>503<br>486<br>171<br>654<br> | 7:071<br>3:892<br>7:868<br>7:467<br>7:606<br>5:340<br>4:827<br>7:274<br>2:791<br>6:038<br>5:242<br>5:261<br>8:685 | 35<br>85<br>73<br>76<br>205<br>111<br>28<br>294<br>90<br>82<br>164<br>106<br>144 | 1:464<br>1:307<br>1:265<br>1:241<br>2:819<br>2:044<br>0:776<br>4:285<br>1:435<br>0:984<br>1:769<br>3:261<br>1:912 | Per Cent.  20.7 33.6 16.1 16.6 37.1 38.3 16.1 58.9 51.4 16.3 33.7 62.0 22.0 |

Table VIII.—Infectious Diseases (Eight Principal), 1916 to 1920.

| DISEASE.                 | YEAR.                                | Number of<br>Cases<br>recorded.           | Cases recorded per Thousand of Population.  | Number of Deaths.  | Death-rate per Thousand of Population.    | Ratio of Deaths to Cases recorded.                               |
|--------------------------|--------------------------------------|---|---|--|---|--|
| Smallpox                 | 1916<br>1917<br>1918<br>1919<br>1920 | 277<br>48<br>35<br>1,455<br>157           | 0·374<br>0·064<br>0·044<br>1·851<br>0·199   | 103<br>5<br>5<br>494<br>50   | 0·139<br>0·006<br>0·006<br>0·628<br>0·063 | 37·1 10·4 14·3 33·9 31·8   |
| Measles                  | 1916<br>1917<br>1918<br>1919<br>1920 | 1,222<br>1,034<br>168<br>719<br>1,325     | 1:651<br>1:380<br>0:214<br>0:914<br>1:685   | 607<br>446<br>82<br>316<br>404   | 0.820<br>0.595<br>0.104<br>0.402<br>0.514 | 49.7<br>43.1<br>48.8<br>43.9<br>30.5                             |
| Scarlet fever            | 1916<br>1917<br>1918<br>1919<br>1920 | 48<br>293<br>81<br>39<br>39               | 0.064<br>0.391<br>0.103<br>0.049<br>0.049   | $egin{array}{c} 2 \\ 22 \\ 7 \\ 4 \\ 4 \end{array}$                      | 0.002<br>0.029<br>0.008<br>0.005<br>0.005 | 4.6<br>7.5<br>8.6<br>10.3<br>10.3                                |
| Diphtheria $\cdots$      | 1916<br>1917<br>1918<br>1919<br>1920 | 836<br>764<br>632<br>484<br>329           | 1·129<br>1·020<br>0·805<br>0·615<br>0·418   | 335<br>352<br>232<br>150<br>77   | 0·452<br>0·469<br>0·295<br>0·190<br>0·097 | 40·1<br>46·1<br>36·7<br>31·0<br>23·4                             |
| Typhoid fever            | 1916<br>1917<br>1918<br>1919<br>1920 | 1,462<br>1,141<br>1,609<br>1,383<br>925   | 1:975<br>1:523<br>2:050<br>1:759<br>1:176   | 632<br>384<br>612<br>345<br>215  | 0.854<br>0.512<br>0.779<br>0.438<br>0.273 | $43 \cdot 2$ $33 \cdot 6$ $38 \cdot 0$ $24 \cdot 9$ $23 \cdot 2$ |
| Typhus fever $\cdots$    | 1916<br>1917<br>1918<br>1919<br>1920 | 1,858<br>767<br>4,433<br>4,825<br>1,606   | 2:510<br>1:024<br>5:648<br>6:139<br>2:043   | $ \begin{array}{c c} 1,075 \\ 371 \\ 2,356 \\ 2,629 \\ 705 \end{array} $ | 1:452<br>0:495<br>3:002<br>3:344<br>0:897 | 57·9<br>48·4<br>53·1<br>54·5<br>43·9                             |
| Relapsing fever $\cdots$ | 1916<br>1917<br>1918<br>1919<br>1920 | 1,035<br>244<br>1,287<br>236<br>429       | 1:398<br>0:325<br>1:639<br>0:300<br>0:545   | 59<br>16<br>93<br>20<br>23   | 0.079<br>0.021<br>0.118<br>0.025<br>0.029 | 5·7<br>6·5<br>7·2<br>8·5<br>5·4                                  |
| ('erebro-spinal fever)   | 1916<br>1917<br>1918<br>1919<br>1920 | 33<br>13<br>23<br>23<br>23<br>28          | 0:044<br>0:017<br>0:029<br>0:029<br>0:035   | 23<br>12<br>10<br>12<br>15   | 0.031<br>0.016<br>0.012<br>0.015<br>0.019 | 69.7<br>92.3<br>43.4<br>52.2<br>53.4                             |
| Totals for Cairo         | 1916<br>1917<br>1918<br>1919<br>1920 | 6,771<br>4,304<br>8,268<br>9,164<br>4,838 | 9·150<br>5·746<br>10·535<br>11·659<br>6·155 | 2,836<br>1,608<br>3,397<br>3,970<br>1,493                                | 3·832<br>2·146<br>4·328<br>5·051<br>1·899 | 41.8<br>37.4<br>41.1<br>43.3<br>30.9                             |

Table IX.—District Distributions of the Principal Zymotic Diseases in 1920.

| Appears.         Pryorb.         Cases.         Deaths.         Cases.   |                       |        |        | RELAPSING |      | CEREBRO-SPINAL                        |             | Twentre  | T aaway | Typhorn | Have R             | S A D S     | HEVER.          | DIPHTHERIA | ERTA        | MEASLES  | 1 SE               | Total. | AL.     |
|---|-----------------------|--------|--------|-----------|------|---------------------------------------|-------------|--|---------|---------|--------------------|-------------|-----------------|------------|-------------|----------|--------------------|--------|---------|
| Cases, Deaths         Cases, Deaths         Deaths         Cases, Deaths         Deaths         Cases, Deaths | Domination FEVER.     | 1      | FEVE   | 2         |      | FEVER.                                | 1           | YPHUS  |         |         |                    | CANDEL      | - Lever         | - Insura   | - Luria     | SAMILE . | 1                  |        |         |
| 1         —         75         19         38         6         3         1         8         —         48         24         253           —         —         91         44         63         15         2         —         8         —         48         24         253           —         —         136         36         112         13         5         —         33         2         103         11         454           —         —         —         163         43         111         17         7         —         33         2         103         12         454           —         —         163         43         111         17         7         —         33         2         103         12         457           13         1         117         54         52         25         —         —         17         17         80         174           13         1         11         11         17         7         34         80         150         140         41         153         14         11         11         14         8         15         15 <th>Cases. Deaths. Cases.</th> <th>Cases.</th> <th></th> <th>ea</th> <th>1111</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>eaths.</th> <th></th> <th>Deaths.</th> <th>Cases.</th> <th>Deaths.</th> <th>Cases</th> <th>Deaths</th>  | Cases. Deaths. Cases. | Cases. |        | ea        | 1111 |                                       |             |  |         |         |                    |             | eaths.          |            | Deaths.     | Cases.   | Deaths.            | Cases  | Deaths  |
| 1         —         75         19         38         6         3         1         8         1         27         7         169           —         —         91         44         63         15         2         —         8         —         48         24         253           —         —         196         36         112         13         5         —         33         5         125         11         454           —         —         —         196         34         111         17         7         33         2         103         12         145           1         —         —         163         43         111         17         7         33         2         103         12         457           1         11         11         51         52         25         —         —         17         17         30         10         —         —         17         17         30         10         —         —         11         11         41         42           1         1         4         1         1         1         1         1 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>   |                       |        |        |           |      |                                       |             |  |         |         |                    |             |                 |            |             |          |                    |        |         |
| -         -         91         44         63         15         2         -         48         -         48         24         253           -         -         136         36         112         13         5         -         33         5         125         11         454           -         -         136         43         111         17         7         -         33         5         103         11         454           -         -         -         136         431         17         -         23         2         103         1         454           1         1         1         1         1         1         1         7         1         454         80         553           1 <th< td=""><td>23,900 8 - 9</td><td>6.</td><td>င</td><td></td><td>-</td><td></td><td></td><td>75</td><td>61</td><td>88</td><td>ဗ</td><td>ଦେ</td><td></td><td><math>\infty</math></td><td><del></del></td><td>22</td><td><u></u></td><td>169</td><td>35</td></th<>   | 23,900 8 - 9          | 6.     | င      |           | -    |                                       |             | 75   | 61      | 88      | ဗ                  | ଦେ          |                 | $\infty$   | <del></del> | 22       | <u></u>            | 169    | 35      |
| -         -         -         136         36         112         13         5         -         33         5         125         111         454           -         -         163         43         111         17         7         -         33         5         125         112         157         457           -         -         163         43         111         17         7         33         2         103         12         457           1         11         15         34         35         25         -         -         17         7         38         15         457           1         13         36         10         25         -         -         11         41         80         174         41         80         175           1         13         34         35         15         26         10         -         -         14         80         175         41         41         80         175         41         41         41         41         41         41         41         41         41         41         41         41         41         41   | 65,000 12 1 29        |        | 99     |           | -    |                                       |             | 91   | 77      | 6.3     | 15                 | ଚ ।         |                 | $\infty$   |             | 48       | 55                 | 253    | 85      |
| -         -         -         163         43         111         17         7         -         33         2         103         12         457           1         1         182         82         81         27         3         2         31         7         174         80         553           1         1         117         54         52         25         -         -         17         7         58         20         290           1         1         11         54         52         25         -         -         17         7         58         20         290           13         9         172         106         60         21         -         -         14         8         15         17         8         174           2         140         41         96         11         7         -         14         8         15         14         8         15         14         8         15         14         8         15         14         8         12         14         8         12         14         8         12         14         8         12  | 57,000 22 8 21        | -      | 21     |           |      |                                       |             | 136  | 36      | 112     | 13                 | ,::         |                 |            | žĢ          | 125      | Ħ                  | 454    | 23      |
| 5         3         182         82         81         27         3         2         31         7         174         80         553           1         1         117         54         52         25         —         —         17         7         58         20         290           13         9         172         106         60         21         —         97         —         77         58         174         80         174           —         -         82         54         30         10         —         14         8         18         18         175         189         18         9         174         80         175         189         175         180         17         480         175         180         17         480         17         480         18         -         180         18         -         180         18         -         180         18         -         180         18         -         180         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18<  | 61,000 9 — 31         | - Te   | 75     |           | ા    |                                       |             | 163  | +3      | 111     | 17                 | 2           | 1               | ee ee      | જા          | 103      | 12                 | 151    | 92      |
| 1         1         117         54         52         25         —         —         17         7         58         20         290           13         9         172         106         60         21         —         —         14         8         174         8         174           —         —         82         54         30         10         —         —         14         8         120         120         480           —         —         140         41         96         11         7         —         14         8         163         14         503           —         —         140         41         96         11         7         —         31         163         14         486           —         —         149         84         68         21         1         41         7         183         47         486           —         —         15         1,606         705         925         215         39         4         329         77         1,325         404         4,48         6         1         —         2         16         1  | 72,700 13 3 64        |        | 64     |           | -    | ۍــــــــــــــــــــــــــــــــــــ | ಣ           | 182  | 85      | 81      | 27                 | ಣ           | ≎ા              | 31         | 7           | 174      | 80                 | 553    | 205     |
| 1         3         10         28         5         1         —         21         —         7         8         174         8         174         8         174         8         179         120         499         175         120         499         18         —         14         8         18   | 54,300 6 3 39         |        | <br>65 |           | -    |                                       | -           | 117  | 54      | 55      | 25                 |             | 1               | 17         | t~          | 200      | ဂ <u>ို</u>        | 290    | 1111    |
| 13         9         172         106         60         21         —         —         37         26         159         120         499           —         —         82         54         30         10         —         —         14         8         15         15         15         15         15         15         15         15         15         15         11         15         15         15         11         1         15  | 36,041 3 1 12         |        | 12     |           | ಣ    | কা                                    | <del></del> | 30   | 10      | 821     | ,0                 | H           |                 | 21         |             | 2.1      | $\infty$           | 174    | 82      |
| 3         -         -         -         -         -         -         -         14         8         15  | 68,600 6 3 52         |        | 52     |           | 6    | 13                                    | ರಾ          | 172  | 106     | 09      | 21                 | 1           | 1               | 37         | 26          | 159      | 120                | 499    | 294     |
| 3         -         140         41         96         11         7         -         34         8         163         14         503           -         -         149         84         68         21         1         -         41         7         183         47         486           -         -         11         47         29         18         -         6         3         34         486         47         486           -         -         -         11         47         29         18         -         6         3         34         31         171         486         17         146         329         77         1,325         404         4,838         1           2         1         93         17         44         6         1         -         329         77         1,325         404         4,838         1           30         16         1,699         722         969         221         40         4         332         77         1,341         404         5,106         1   | 62,700 8 5 23         |        |        |           | -    |                                       |             | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | 45      | <br>0%  | 10                 |             |                 | 14         | <b>%</b>    | 1.5      | 12                 | 175    | ੱ<br>ਜ  |
| -       -       149       84       68       21       1       -       41       7       183       47       486         -       -       -       71       47       29       18       -       -       6       3       34       31       171         -       -       -       1       198       85       157       26       10       1       46       3       156       18       -       654       171 <t< td=""><td>83,300 15 8 45</td><td></td><td>45</td><td></td><td></td><td>ಕರ</td><td> </td><td>140</td><td>41</td><td>96</td><td></td><td>2</td><td> </td><td>77</td><td><math>\infty</math></td><td>163</td><td>14</td><td>503</td><td>&amp;<br/>€2</td></t<>   | 83,300 15 8 45        |        | 45     |           |      | ಕರ                                    |             | 140  | 41      | 96      |                    | 2           |                 | 77         | $\infty$    | 163      | 14                 | 503    | &<br>€2 |
| -     -     71     47     29     18     -     -     6     3     34     31     171       -     -     1     198     85     157     26     10     1     46     3     156     18     654       -     28     15     1,606     705     925     215     39     4     329     77     1,325     404     4,838     1       2     1     93     17     44     6     1     -     3     -     16     -     268       30     16     1,699     722     969     221     40     4     332     77     1,341     404     5,106     1  | 92,700 18 5 26        |        | 36.    |           |      |                                       |             | 149  |         | 68      | 21                 | H           |                 | 41         | -1          | 183      | 71                 | 98F    | 164     |
| 3         1         198         85         157         26         10         1         46         3         156         18         654           28         15         1,606         705         925         215         39         4         329         77         1,325         404         4,838         1           2         1         93         17         44         6         1         -         3         -         16         -         268           30         16         1,699         722         969         221         40         4         332         77         1,341         404         5,106         1  | 32,500 14 7 17        |        | 17     |           |      |                                       |             | 7.1  |         | 6.61    | $\frac{1}{\infty}$ | 1           | 1               | 9          | ಣ           | 34       | 3.1                | 171    | 100     |
| 28     15     1,606     705     925     215     39     4     329     77     1,325     404     4,838     1       2     1     93     17     44     6     1     -     3     -     16     -     268       30     16     1,699     722     969     221     40     4     332     77     1,341     404     5,106     1   | 75,300 23 6 61        |        | 19     |           | 71   | ಣ                                     | -           | 198  | 25.     | 157     | 56                 | 10          | <del></del> -   | 97         | ಣ           | 156      | $\frac{1}{\infty}$ | 654    | 144     |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$   | 785,941 157 50 429    | 1      | 67     |           | 193  | 8                                     | 1           | 909,   | 705     | 925     | 215                | 39          | <del></del>     | 329        |             | 1,325    | F0F                | 4,838  | 1,49    |
| 30 16 1,699 722 969 221 40 4 332 77 1,341 404 5,106 1   | Ноя-                  |        | 00     |           | -    | ?।                                    | -           | 66   |         | 44      | 9                  | <del></del> |                 | ಬ          |             | 16       |                    | 893    |         |
|   | 166 52 529            |        | 29     |           | 24   | 30                                    |             | 669,   | 722     | 696     | 221                | 40          | <del>-1</del> 1 | 332        |             | 1,341    | 404                | 5,106  | 1,520   |

In fact taking the average number during the last five years, all the diseases, excepting measles and cerebro-spinal fever, were below the mean.

Smallpox.—The number of cases of smallpox notified during 1920 was 157, as against 1,455 in 1919. The ratio of deaths to cases recorded was, however, not very much smaller than in the previous year. 41 out of the 50 deaths from this disease were diagnosed after death; that is to say that there had been no medical attendance and the cases had not been notified.

The highest incidence occurred in Wâyli with 23 whilst Ezbekîya was next with 22. The highest death-rate was in Old Cairo, being 0.215, and the lowest in Mûsky and 'Abdîn. See Table X and Figure 2.

Chart IV shows the weekly number of cases of smallpox estimated per million of population as compared with the maximum, minimum, and mean rates for the period 1915–1919.

Table X.—Smallpox Case- and Death-Rates in Cairo Districts in 1920.

| DISTRICT.   | Population.  | Number of<br>Cases<br>recorded.                                      | Cases<br>recorded<br>per Thousand<br>of Population.   | Number of Deaths.   | Death-rate<br>per Thousand<br>of Population. | Ratio<br>of Deaths<br>to Cases<br>recorded.                       |
|---|--|--|---|---|--|---|
| Mûsky  Bâb el Sha'rîya  Ezbekîya  'Abdîn  Saiyeda Zeinab  Khalîfa  Helwân  Darb el Ahmar  Gamâlîya  Shubra  Bûlâq  Old Cairo  Wâyli | 23,900<br>65,000<br>57,700<br>61,200<br>72,700<br>54,300<br>36,041<br>68,600<br>62,700<br>83,300<br>92,700<br>32,500<br>75,300 | 8<br>12<br>22<br>9<br>13<br>6<br>3<br>6<br>8<br>15<br>18<br>14<br>23 | 0·334<br>0·184<br>0·381<br>0·147<br>0·178<br>0·110<br>0·083<br>0·087<br>0·127<br>0·180<br>0·194<br>0·430<br>0·305 | -<br>1<br>8<br>-<br>3<br>3<br>1<br>3<br>5<br>8<br>5<br>7<br>6 | 0.015<br>0.138<br>                           | Rer Cent.  8.3 36.4  23.1 50.0 33.3 50.0 62.5 53.3 27.8 50.0 26.1 |
| Totals for Cairo  | 785,941  | 157  | 0.199   | 50  | 0.063  | 31.8  |

Measles.—The total number of cases of measles during the present year was 1,325, and this is the highest number for at least nine years. The rate of cases notified per thousand of population was therefore 1.685.

The highest mortality-rate occurred in Saiyeda Zeinab with 2·393, whilst Gamâlîya had the lowest rate, being 0·287.

TABLE XI.—MEASLES CASE- AND DEATH-RATES IN CAIRO DISTRICTS IN 1920.

| DISTRICT. | Population.   | Number of<br>Cases<br>recorded.   | Cases<br>recorded<br>per Thousand<br>of Population.   | Number of Deaths.                     | Death-rate per Thousand of Population.  | Ratio<br>of Deaths<br>to Cases<br>recorded.                    |
|-----------|---|---|---|---------------------------------------|---|--|
| Mûsky     | 23,900<br>65,000<br>57,700<br>61,200<br>72,700<br>54,300<br>36,041<br>68,600<br>62,700<br>83,300<br>92,700<br>32,500<br>75,300<br>785,941 | 27<br>48<br>125<br>103<br>174<br>58<br>77<br>159<br>18<br>163<br>183<br>34<br>156 | 1:129<br>0:738<br>2:166<br>1:683<br>2:393<br>1:068<br>2:136<br>2:317<br>0:287<br>1:956<br>1:974<br>1:046<br>2:071 | 7 24 11 12 80 20 8 120 12 14 47 31 18 | 0·292<br>0·369<br>0·190<br>0·196<br>1'100<br>0·368<br>0·221<br>1·749<br>0·191<br>0·168<br>0·507<br>0·953<br>0·239 | 25.9 50.0 8.8 11.6 46.0 34.5 10.4 75.5 66.7 8.6 25.7 91.2 11.5 |

The highest death-rate occurred in Darbel Ahmar with 1.749 per thousand of population and the lowest in Shûbra with 0.168.

The ratio of deaths to cases recorded varied a great deal in the different districts and ranged from 91·2 per cent in Old Cairo to 8·6 per cent in Shûbra, whilst the ratio for Cairo City was 30·5. See Table XI and Figure 3.

Chart V shows the weekly number of cases of measles estimated per million of population as compared with the maximum, minimum, and mean rates for the period 1915-1919.

Scarlet Fever.—There is nothing particular to remark on the incidence of this disease; the total number of cases was the same as in 1919, namely only 39, giving a morbidity-rate of 0.049 per thousand of population. The number of deaths also was the same as in the previous year with a rate of 0.005 per thousand of population.

Wâyli was responsible for 10 cases, but there were only three districts which were entirely free.

Saiyêda Zeinab had the highest ratio of deaths to cases, i.e. 66·7 per cent. See Table XII and Figure 4.

Chart VI shows the weekly number of cases of scarlet fever estimated per million of population as compared with the maximum, minimum, and mean rates for the period 1915–1919.

TABLE XII.—SCARLET FEVER CASE- AND DEATH-RATES IN CAIRO DISTRICTS IN 1920.

| DISTRICTS.   | Population.  | Number of<br>Cases<br>Recorded.  | Cases<br>recorded<br>per Thousand<br>of Population.  | Number of Deaths.                    | Death-rate<br>per Thousand<br>of Population.                    | Ratio of Deaths to Cases recorded.                   |
|--|--|--|--|--------------------------------------|---|--|
|  |  |  |  |                                      |   | Per Cent.  |
| Mûsky Bâb el Sha'rîya Ezbekya 'Abdîn Saiyeda Zeinab Khalifa Helwân Darb el Ahmar Gamalîya Shubra Bûlâq Old Cairo Wâyli | 23,900<br>65,000<br>57,700<br>61,200<br>72,700<br>54,300<br>36,041<br>68,600<br>62,700<br>83,300<br>92,700<br>32,500<br>75,300 | $ \begin{array}{c} 3 \\ 2 \\ 5 \\ 7 \\ 3 \\ -1 \\ -1 \\ -7 \\ 1 \\ -1 \\ 0 \end{array} $ | 0·125<br>0·030<br>0·086<br>0·114<br>0·041<br>—<br>0·027<br>—<br>0·084<br>0·010<br>—<br>0·132 | 1<br><br>-2<br><br><br><br><br><br>1 | 0·141<br>—<br>0·027<br>—<br>—<br>—<br>—<br>—<br>—<br>—<br>0·013 | 33·3<br>—<br>66·7<br>—<br>—<br>—<br>—<br>—<br>—<br>— |
| Totals for Cairo   | 785,941  | 39   | 0.049  | 4                                    | 0.005   | 10.3   |

TABLE XIII.—DIPHTHERIA CASE- AND DEATH-RATES IN CAIRO DISTRICTS IN 1920.

| DISTRICT.   | Population.  | Number of<br>Cases<br>recorded.   | Cases recorded per Thousand of Population.  | Number of Deaths.  | Death-rate<br>per Thousand<br>of Population,  | Ratio of Deaths to Cases recorded. |
|---|--|---|---|--|---|------------------------------------|
| Mûsky Bâb el Shaʿrîya Ezbekîya 'Abdîn Saiyeda Zeinab Khalîfa Helwân Darb el Ahmar Gamâlîya Shubra Bûlâq Old Cairo Wâyli | 23,900<br>65,000<br>57,700<br>61,200<br>72,700<br>54,300<br>36,041<br>68,600<br>62,700<br>83,300<br>92,700<br>32,500<br>75,300 | 8<br>8<br>33<br>33<br>31<br>17<br>21<br>37<br>44<br>34<br>41<br>6<br>46 | 0·334<br>0·123<br>0·571<br>0·539<br>0·426<br>0·313<br>0·582<br>0·539<br>0·223<br>0·408<br>0·442<br>0·184<br>0·610 | $ \begin{array}{r}     \frac{1}{5} \\     \frac{2}{7} \\     7 \\     \hline     7 \\     \hline     26 \\     8 \\     8 \\     7 \\     3 \\     3 \end{array} $ | 0·041<br>0·086<br>0·032<br>0·096<br>0·128<br><br>0·379<br>0·127<br>0·096<br>0·075<br>0·092<br>0·039 | Per Cent.  12.5                    |
| Totals for Cairo  | 785,941  | 329   | 0.418   | 77   | 0.097   | 23.4                               |

Diphtheria.—The total number of cases recorded during 1920 was 329, which is the smallest for at least nine years. This gives a ratio of 0.418 cases recorded per thousand of population. The ratio of cases to deaths was also low in comparison with former years. 63 out of the 77 deaths from this disease were diagnosed after death.

Darb el Ahmar had the highest number of cases as well as the highest ratio of deaths

to cases recorded. See Table XIII and Figure 5.

Chart VII shows the weekly number of cases of diphtheria estimated per million of population as compared with the maximum, minimum, and mean rates for the period 1915–1919.

Typhoid Fever.—The total number of cases during the year was 925, which is the lowest since 1913. The morbidity-rate was 1·176 per thousand of population, whilst the death rate was 0·273.

The highest morbidity-rate occurred in Wâyli with 2.084 and the lowest in Gamâlîya with 0.478.

The highest death-rate as well as the highest ratio of deaths to cases was in Old Cairo with 0.553 per thousand of population and 62.1 per cent respectively. See Table XIV and Figure 6.

Chart VIII shows the weekly number of cases of typhoid fever estimated per 500,000 of population as compared with the maximum, minimum, and mean rates for the period

1915-1919.

TABLE XIV.—Typhoid Fever Case- and Death-Rates in Cairo Districts in 1920.

| District.   | Population.  | Number of<br>Cases<br>Recorded.   | Cases recorded per Thousand of Population.  | Number of Deaths.  | Death-rates per Thousand of Population.   | Ratio of Deaths to Cases recorded.  |
|---|--|---|---|--|---|---|
| Mûsky Bâb el Sha'rîya Ezbekîya 'Abdîn Saîyeda Zeinab Khalîfa Helwân Darb el Ahmar Gamalîya Shubra Bûlâq Old Cairo Wâyli  Totals for Cairo | 23,900<br>65,000<br>57,700<br>61,200<br>72,700<br>54,300<br>36,041<br>68,600<br>62,700<br>83,300<br>92,700<br>32,500<br>75,300 | 38<br>63<br>112<br>111<br>81<br>52<br>28<br>60<br>30<br>96<br>68<br>29<br>157 | 1.589<br>0.969<br>1.941<br>1.813<br>1.114<br>0.957<br>0.776<br>0.874<br>0.478<br>1.152<br>0.733<br>0.892<br>2.084 | $ \begin{array}{c}                                     $ | 0·251<br>0·230<br>0·225<br>0·277<br>0·371<br>0·460<br>0·138<br>0·306<br>0·159<br>0·132<br>0·226<br>0·553<br>0·345 | per Cent.  15.8 23.8 11.6 15.3 33.3 48.1 17.9 35.0 33.3 11.5 30.9 62.1 16.6 |

Typhus Fever.—Although still prevalent during the year, was very much less severe than, at any rate, the two previous years, the total number of cases being 1,606 against 4,825 in 1919 and 4,433 in 1918.

This gives a rate of 2.043 cases per thousand of population. The total number of deaths from this disease was 705, which gives a death-rate of 0.897 per thousand of population.

The district with the highest morbidity-rate was Mûsky, being 3·138, whilst Helwân had the lowest rate.

The highest death-rate occurred in Darb el Ahmar with 1.545 and the lowest in Helwân with 0.277.

The highest ratio of deaths to cases was in Old Cairo, being 66·2, and the lowest in Mûsky with 25·3 per cent.

Chart IX shows the weekly number of cases of typhus fever estimated per 500,000 of population as compared with the maximum, minimum, and mean rates for the period 1915–1919.

With the object of attacking the source of this disease (as well as Relapsing Fever) a delousing campaign was started during March. A man and a woman who have been specially trained in the work go out with each disinfecting gang to the house of the case. If, on examination of the contacts, lice or nits are found, the contacts are bathed and

all hair is shaved from the body whenever possible. When objections are made to this procedure, washing with petroleum solution is carried out instead. The hair of the head is also thoroughly washed and soaked with the solution. The clothes are disinfected. The whole operation is repeated on the seventh day if considered necessary and the clothes re-disinfected.

To do this thoroughly takes so much time and supervision that it has not been found possible to delouse in this way the contacts of all cases.

Two of the women engaged in this work contracted the disease.

2,350 Arabic handbills were distributed detailing the best methods of exterminating lice, as a precautionary measure against typhus and relapsing fevers.

The Fatwa of the Grand Mufti of Egypt was read in Waqf mosques and posted about

in prominent places in the native quarters.

This Fatwa explains that typhus and relapsing fevers are contagious and epidemic diseases, that they are communicated from one person to another by means of the louse, and recapitulates the teaching of the Mohammedan religion regarding contagious and epidemic diseases and the duty that is incumbent on every Muslim to protect himself against them.

An outbreak of typhus of some severity took place at the village of Kafr el Gamûs, population 1,200, near Matârîya, included this year within the circumscription of Cairo. This disease was discovered on March 19, and the last case occurred on June 20. There were 53 cases in all. The village officials strove in every way to conceal the disease and on pleading that removal of cases to the Fever Hospital was the cause, were allowed to have an isolation camp just outside the village. The only response to this concession was the concealment by the Sheikh el Beled and Sheikh of ghafîrs of typhus cases in the persons of the sister of one who was aunt of the other and also of the wife of the official telephone operator. These cases were discovered only after death, when concealment was no longer possible.

The sanitary barber of the village was dismissed by us and the 'Omda and Mashaiekh

dismissed by the Ministry of the Interior.

TABLE XV.—Typhus Fever Case- and Death-rates in Cairo Districts in 1920.

| DISTRICT.  | Population.   | Number of<br>Cases<br>recorded.                   | Cases recorded per Thousand of Population.                           | Number of Deaths.                             | Death-rate<br>per Thousand<br>of Population.                         | Ratio of Deaths to Cases recorded.                           |
|--|---|---|--|---|--|--|
|  |   |   |  |   |  | Per Cent.  |
| Mûsky Bab el Sha'rîya Ezbekîya 'Abdîn Saiyeda Zeinab Khalîfa Helwân Darb el Ahmar                | $ \begin{array}{c} 23,900 \\ 65,000 \\ 57,700 \\ 61,200 \\ 72,700 \\ 54,300 \\ 36,041 \\ 68,600 \end{array} $ | 75<br>91<br>136<br>163<br>182<br>117<br>30<br>172 | 3·138<br>1·400<br>2·357<br>2·663<br>2·503<br>2·154<br>0·832<br>2·507 | 19<br>44<br>36<br>43<br>82<br>54<br>10<br>106 | 0.794<br>0.676<br>0.623<br>0.702<br>1.127<br>0.994<br>0.277<br>1.545 | 25·3<br>48·3<br>26·5<br>26·4<br>45·0<br>46·1<br>33·3<br>61·6 |
| Daro et Anmar          Gamâlîya          Shubra          Bûlâq          Old Cairo          Wâyli | 68,600 $62,700$ $83,300$ $92,700$ $32,500$ $75,300$   | 82<br>140<br>149<br>71<br>198                     | 1:307<br>1:680<br>1:607<br>2:184<br>2:629                            | 54<br>41<br>84<br>47<br>85                    | 0.861<br>0.492<br>0.906<br>1.446<br>1.128                            | 65 · 8<br>29 · 3<br>56 · 4<br>66 · 2<br>42 · 9               |
| Totals for Cairo   | 785,941   | 1,606   | 2.043  | 705   | 0.897  | 43.9   |

Relapsing Fever.—The total number of cases notified during the year was 429, giving a rate of 0.545 cases recorded per thousand of population, whilst the death-rate was 0.029 per thousand of population.

The highest case-rate occurred in Saiyeda Zeinab with 0.880, and the lowest in Bûlâq

with 0.280.

The highest death-rate was in Darb el Ahmar, being 0·131 per thousand of population, whilst the highest ratio of deaths to cases was in the Helwân district with 25·0 per cent. See Table XVI and Figure 8.

Chart X shows the weekly number of cases of relapsing fever estimated per million of population as compared with the maximum, minimum, and mean rates for the period 1915–1919.

TABLE XV1.—RELAPSING FEVER CASE- AND DEATH-RATES IN CAIRO DISTRICTS IN 1920.

| DISTRICTS.   | Population.  | Number of<br>Cases<br>recorded.   | Cases<br>recorded<br>per Thousand<br>of Population.   | Number<br>of Deaths.                      | Death-rate<br>per Thousand<br>of Population. | Ratio of Deaths to Cases recorded.                            |
|--|--|---|---|---|--|---|
| Mûsky Bâb el Sha'rîyn. Ezbekîya 'Abdîn Saiyeda Zeinab Khalîfa Helwân Darb el Ahmar Gamalîya Shubra Bûlâq Old Cairo Wâyli | 23,900<br>65,000<br>57,700<br>61,200<br>72,700<br>54,300<br>36,041<br>68,600<br>62,700<br>83,300<br>92,700<br>32,500<br>75,300 | 9<br>29<br>21<br>31<br>64<br>39<br>12<br>52<br>23<br>45<br>26<br>17<br>61 | 0·376<br>0·446<br>0·363<br>0·506<br>0·880<br>0·718<br>0·332<br>0·758<br>0·336<br>0·540<br>0·280<br>0·523<br>0·810 | 1<br>1<br>2<br>1<br>1<br>3<br>9<br>1<br>— | 0·041<br>0·015<br>                           | Per Cent.  11 1 3 · 4 - 6 · 4 1 · 6 2 · 6 25 · 0 17 · 3 4 · 3 |
| Totals for Cairo   | 785,941  | 429   | 0.242   | 23  | 0.029  | 5•4   |

Cerebro-spinal Fever.—There were 28 cases during the year, with 15 deaths. The case-rate was therefore 0.035 and the death-rate 0.019 per thousand of population.

The highest case-rate occurred in Darb el Ahmar with 0.189 and the highest death-rate in the same district.

A small outbreak of this disease took place at the end of January and during February among the Police recruits who were lodged at the Old School of Commerce, Sharia El Khalîg el Masri. There were 9 cases in all and the disease appears to have been introduced from the Faiyûm.

In view of what has been written concerning the incubation period of cerebro-spinal meningitis the dates of incidence of these cases are not without interest, *viz.* January 31, February 4, 8, 12, 13, 18, 22, 23, and 24.

All clothes and bedding were disinfected and the men distributed as widely as possible in the various rooms of the building. The arrangement found in force, of a common mug and a bucket of drinking water in which to dip was abolished; water taps were appointed as the sole source for drinking water and each man was provided with his own mug.

TABLE XVII.—CEREBRO-SPINAL FEVER CASE- AND DEATH-RATES IN CAIRO DISTRICTS IN 1920.

|  | •  |  |  |                                 | -   |                                    |
|--|--|--|--|---------------------------------|---|------------------------------------|
| DISTRICTS.   | Population.  | Number of<br>Cases<br>Recorded.            | Cases recorded rer Thousand of Population. | Number of Deaths.               | Death-rates<br>per Thousand<br>of Population. | Ratio of Deaths to Cases recorded. |
| Mûsky Bâb el Sha'rîya Ezbekya 'Abdîn Saiyeda Zeinab Khalifa Helwân Darb el Ahmar Gamalîya Shubra Bûlâq | 23,900<br>65,000<br>57,700<br>61,200<br>72,700<br>54,300<br>36,041<br>68,600<br>62,700<br>83,300<br>92,700 | 1<br>-<br>-<br>5<br>1<br>2<br>13<br>-<br>3 | 0.041<br>                                  | -<br>-<br>3<br>1<br>1<br>9<br>- |   | Per Cent.                          |
| Old Cairo Wâyli  | $\begin{array}{c c} 32,500 \\ 75,300 \end{array}$  | 3  | 0.039                                      | 1                               | 0.013   | 33.3                               |
| Totals for Cairo   | 785,941  | 28   | 0.035                                      | 15                              | 0.019   | 53.4                               |

Under these measures, the epidemic was quickly suppressed. One case only occurred

after they were put into force. See Table XVII and Figure 9.

Chart XI shows the weekly number of cases of cerebro-spinal fever estimated per million of population as compared with the maximum, minimum, and mean rates for the period 1915–1919.

Puerperal Fever.—The total number of deaths notified from puerperal fever during 1920 was 48, of which 43 were among natives and 5 among foreigners.

This gives a death-rate of 0.062 per thousand of population and 1.333 per thousand

births.

In addition to these 48 deaths, there were 30 others which took place within a fortnight of confinement.

The cases assigned to these were: peritonitis 3, eclampsia 7, difficult labour 3, typhus

2, heart disease 5, hæmorrhage 5, influenza 1, pneumonia 3, and abortion 1.

If these 30 deaths be added to the total of 48 from puerperal fever, the death-rate will be 0.102 per thousand of population and 2.170 per thousand births.

| TABLE | XVIII.—PUERPERAL | FEVER, | 1914–1920. |
|-------|------------------|--------|------------|
|-------|------------------|--------|------------|

| YEAR.  | Death<br>from<br>Puerperal<br>Fever.   | Death within a Fortnight of Confine- ment. | Total<br>Maternal<br>Deaths.              | Death-rate from<br>Puerperal Fever<br>per Thousand<br>of Population. | Death-rate from<br>Puerperal Fever<br>per Thousand<br>Births. | Death-rate of all Maternal Deaths per Thousand of Population. | Death-rate of all<br>Maternal Deaths<br>per Thousand<br>Births. |
|--|--|--|---|--|---|---|---|
| 1914<br>1915<br>1916<br>1917<br>1918<br>1919 | 48<br>85<br>75<br>55<br>85<br>55<br>48 | 30<br>32<br>29<br>27<br>31<br>25<br>30     | 78<br>117<br>104<br>82<br>116<br>80<br>78 | 0.066<br>0.115<br>0.113<br>0.073<br>0.112<br>0.072<br>0.062          | 1.532<br>2.839<br>2.406<br>1.766<br>3.030<br>1.720<br>1.333   | 0·107<br>0·159<br>0·140<br>0·109<br>0·152<br>0·105<br>0·102   | 2·490<br>3·903<br>3·336<br>2·607<br>4·135<br>2·502<br>2·170     |

Influenza (and Respiratory Diseases).—This infectious disease became notifiable in August 1919, and during 1920 the number of notifications were 1,587 with 130 deaths recorded.

This gives a case-rate of 2.019 per thousand of population and a death-rate of 0.165 per thousand of population. The ratio of deaths to cases was 8.2 per cent.

The following prophylactic measures were taken with a view to prevent the spread

of the disease.

Posters in Arabic, English, French, Italian, and Greek were put up in various quarters of the town and in tram cars and handbills distributed giving in brief the manner in which the disease is contracted and the precautions to be taken against it. The measures to be adopted, when attacked or when nursing a patient affected with it, were also detailed.

Instructions were sent to the Tram Companies as to the necessity of keeping the trams ventilated during the journey and of leaving the doors open until they start on the

return journey.

Theatres and places of amusement were required to leave an interval of at least an hour between successive performances, during which time a thorough ventilation of the

interior of the building was to be effected by opening all doors and windows.

In view of the fact that the cause of death in influenza has so frequently been pneumonia and broncho-pneumonia in the serious epidemics of recent years, a comparison of the recorded deaths from influenza with those certified as being due to pneumonia and broncho-pneumonia is not without interest. Such a comparison is even of considerable value when an epidemic is threatening in view of the possibility of the influenzal origin of cases of pneumonia being overlooked.

It happens that this year there is nothing remarkable to be observed in the com-

parison, but the table that has been drawn up is given as Table XIX.

As will be seen from that table, the deaths due to respiratory diseases, excluding

tuberculosis, amounted to 4,099.

These comprise 1,518 of pneumonia, 2,269 of bronchitis, 39 of pleurisy, and 273 of other respiratory diseases. (Table XIX.)

Of the deaths from pneumonia 740 were deaths of children up to five, 156 of persons from over 5 to 15 years of age, 234 from over 15 to 35, and 388 above 35.

Table XIX.—Influenza and Respiratory Diseases, 1920.

| ,, | VEEK ENDI | NG  | Influenza Cases. | Deaths<br>from Influenza. | Deaths irom Pneumonia and Broucho-Pneumonia. | Deaths from all Respiratory Diseases, excluding Broncho-Pneumonia. | ,  | WEEK ENDI | v.G  | Influenza Cases. | Deaths from Influenza. | from Pneumonia and Broncho-Pneumonia. | Deaths from all Respiratory Diseases excluding Broncho-Pneumonia |
|----|-----------|-----|------------------|---------------------------|--|--|----|-----------|------|------------------|------------------------|---------------------------------------|--|
| 1  | January   | 7   | 7                | _                         | 36   | 105  | 27 | July      | 8    | 9                | _                      | 23                                    | 90   |
| 2  | ,,        | 14  | 22               | 1                         | 38   | 93   | 28 | >>        | 15   | 6                |                        | 36                                    | 95   |
| 3  | "         | 21  | 66               | 6                         | 36   | 100  | 29 | >>        | 22   | 3                |                        | 23                                    | 66   |
| 4  | 97        | 28  | 132              | 7                         | 25   | 81   | 30 | ,,,       | 29   | 2                | _                      | 28                                    | 78   |
| 5  | Februar   | y 4 | 184              | 11                        | 36   | 107  | 31 | August    | 5    | 8                |                        | 20                                    | 60   |
| 6  | >>        | 11  | 174              | 5                         | 44   | 115  | 32 | ,,        | 12   | 4                |                        | 32                                    | 83   |
| 7  | "         | 18  | 140              | 21                        | 43   | 104  | 33 | ,,,       | 19   | 11               |                        | 26                                    | 76   |
| 8  | "         | 25  | 134              | 13                        | 36   | 114  | 34 | ,,        | 26   | 2                |                        | 20                                    | 53   |
| 9  | March     | 4   | 141              | 17                        | 38   | 111  | 35 | Septemb   | er 2 | 4                |                        | 27                                    | 75   |
| 10 | >>        | 11  | 70               | 7                         | 21   | 74   | 36 | "         | 9    | 1                | —                      | 20                                    | 53   |
| 11 | "         | 18  | 46               | 9                         | 27   | 82   | 37 | ,,        | 16   | 15               | _                      | 20                                    | 44   |
| 12 | >>        | 25  | 52               | 8                         | 29   | 76   | 38 | "         | 23   | 10               | 1                      | 17                                    | 39   |
| 13 | April     | 1   | 44               | 8                         | 34   | 93   | 39 | "         | 30   | 8                |                        | 20                                    | 41   |
| 14 | ,,        | 8   | 28               | 5                         | 36   | 83   | 40 | October   | 7    | 8                |                        | 12                                    | 45   |
| 15 | ,,        | 15  | 21               | 5                         | 34   | 84   | 41 | >>        | 14   | 9                |                        | 17                                    | 36   |
| 16 | >>        | 22  | 16               | 4                         | 48   | 96   | 42 | "         | 21   | 9                |                        | 19                                    | 47   |
| 17 | >>        | 29  | 18               |                           | 44   | 114  | 43 | , ,,      | 28   | 7                |                        | 18                                    | 40   |
| 18 | May       | 6   | 6                | 1                         | 40   | 94   | 44 | Novemb    | er 4 | 3                | _                      | 19                                    | 47   |
| 19 | ,,        | 13  | 21               | _                         | 43   | 121  | 45 | "         | 11   | 9                | _                      | 16                                    | 44   |
| 20 | ,,,       | 20  | 27               | _                         | 50   | 116  | 46 | "         | 18   | 9                | _                      | 16                                    | 49   |
| 21 | ,,        | 27  | 8                | _                         | 42   | 115  | 47 | >>        | 25   | 9                |                        | 23                                    | 54   |
| 22 | June      | 3   | 8                |                           | 31   | 92   | 48 | Decemb    | er 2 | 6                | _                      | 22                                    | 49   |
| 23 | ,,        | 10  | 5                | 1                         | 40   | 107  | 49 | "         | 9    | 8                |                        | 16                                    | 47   |
| 24 | "         | 17  | 18               | _                         | 31   | 105  | 50 | ,,,       | 16   | 11               | _                      | 24                                    | 69   |
| 25 | . ,,      | 24  | 5                | _                         | 38   | <b>1</b> 14  | 51 | >>        | 23   | 8                | _                      | 18                                    | 57   |
| 26 | July      | 1   | 12               | _                         | 38   | 93   | 52 | >>        | 31   | 3                |                        | 28                                    | 73   |
|    | ,         |     |                  |                           | *  |  | 1  | Готац     | •••  | 1,587            | 130                    | 1,518                                 | 4,099  |

Encephalitis Lethargica.—During 1920 six cases of this disease were notified. One of these came from Kharga Oasis whilst the other five were residents of Cairo. One case was notified from Ezbekîya, one from Shubra, one from 'Abdîn, and two from Saiyeda.

The first case was notified from Ezbekîya on June 10.

All died with the exception of the case from Ezbekîya.

| Case.   | Date of<br>Notification.                 | Date of Onset.   | Age.                             | Sex.                | Nationality.                                  | District.  | Result.   |
|---|--|--|----------------------------------|---------------------|---|--|---|
| $ \begin{array}{c} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \end{array} $ | June 10 , 12 , 24 July 3 Sept. 3 Dec. 21 | May 22<br>,, 28<br>June 18<br>,, 20<br>Augst 31<br>Dec. 12 | 12<br>17<br>57<br>19<br>23<br>18 | Male<br>Female<br>" | Syrian<br>Egyptian<br>French<br>Egyptian<br>" | Ezbekîya<br>Shubra<br>'Abdîn<br>Kharga Oasis<br>Saiyeda<br>" | Recovered Death (June 24) ,, (,, 23) ,, (July 3) ,, (Sept. 13) ,, (Dec. 20) |

The symptoms of the first two cases were reported to be as follows:—

Case 1.—R. A., age 12, male, schoolboy. Was last at school May 22. Started with headache and general weakness. When seen on June 13, he had slight fever, stupor, could be roused to answer questions but went to sleep again. No diplopia, no squint, no facial paralysis. Pupils dilated and fixed; muscles of limbs "paralysed." No history of recent illness in patient or family. Sanitary conditions of the house bad.

Mother stated that his condition was improving. Not so drowsy as he had been.

Recovered.

Case 2.—T. A., age 17, male, student. Was last at school May 27, started with headache and general weakness. When seen on June 13, temperature was 37.5° in morning and 38.5° in evening.

Lies on his back in helpless state. Drowsy but could be roused, after which he at once went to sleep. Could hardly open his eyes. Diplopia, pupils dilated and fixed. Spasmodic contraction of the face. Difficulty in speech. Muscles of limbs "paralysed." Slight incontinence of urine. Constipation. Sanitary condition of house good. No history of recent illness in patient or family. Died June 23.

#### Steps Taken:—

- (a) A circular letter was sent to all practitioners in Cairo drawing their attention to the disease and asking them to notify all cases.
- (b) Also to Medical Officers of Districts to notify all cases and to give a full report of each case.
  - (c) Every case was isolated and disinfection done after death or recovery.
- (d) Every case which could not be isolated in his or her own house was sent to the Fever Hospital.

Anthrax.—Injected Shaving Brushes.—On August 20, 1919, an officer of the R.A.M.C. reported verbally to the Principal Medical Officer of Health that three cases of malignant pustule on the cheek had occurred amongst the troops at Qantara and that in each case the patient had recently bought a shaving brush from the same consignment. This consignment had been received in June 1919 from a firm in Cairo who had imported 500 dozen from Japan in May 1919. A shaving brush of this consignment was bought and examined by the R.A.M.C. officer who found it to be swarming with Anthrax bacilli. Specimens were obtained by the Inspectorate from the remainder of the stock still in possession of the Cairo firm and sent to the Public Health Laboratories for analysis. The results of the examination of the R.A.M.C. Medical Officer were fully confirmed. The brushes still in possession of the firm were bought up by the Inspectorate and destroyed. The remainder had by this time been sold and widely distributed to such places as Alexandria, Mansûra, Jerusalem, Jaffa, and Beyrout.

Arrangements were made by the Department for the examination of specimens of future consignments before being released from the Customs. Several consignments from

Japan were found to be infected and one, at least, was returned to Japan.

In view of the danger to the public, Law No. 21 of 1920 was promulgated on May 29,

1920, regulating the importation of shaving brushes into the country.

This law forbids the importation unless accompanied by a certificate from the competent authority of the country of manufacture to the effect that the hair has been submitted to a disinfection recognized as being sufficient for anthrax. Notwithstanding this certificate the sanitary authority can always stop delivery from the Customs until a bacteriological examination of specimens has been made. Infected consignments can be destroyed without compensation or may be authorized by the sanitary authority to be reexported to the country of origin. Another article empowers the Ministry of the Interior—by decision of the Council of Ministers—to prohibit the importation of shaving brushes from any country under certain circumstances.

#### IV.—DISINFECTION SERVICE.

During 1920 the total number of rooms disinfected by the two Services of Abbâsîya and Fum el Khalîg was 25,169. Of this total the Abbâsîya Service was responsible for 14,641 rooms and Fum el Khalîg 10,528.

Of the rooms disinfected by the Abbâsîya Service 673 were disinfected with formalin,

11,314 with sublimate solution, and 2,654 with cyllin.

The Fum el Khalîg staff disinfected 268 rooms with formalin, 7,234 with sublimate solution, and 3,026 with cyllin.

In addition to these disinfections 241,760 articles of clothing were removed by the

two Services for steam disinfection.

Of this number 192,253 were removed and disinfected at 'Abbâsîya and 49,507 at Fum el Khalîg.

Delousing.—During the year, a delousing campaign was instituted against typhus and relapsing fever. Four male and four female delousers were attached to the 'Abbâsîya staff and three male and three female delousers to the Fum el Khalîg staff.

The total number of contacts deloused during the year was 1,979, of which 1,102

were females and 877 males.

One male and one female delouser were appointed to each complete gang at the 'Abbâsîya and Fum el Khalîg Disinfecting Stations.

## V.—GOVERNMENT FEVER HOSPITAL, ABBASSIYA.

The carrying out of the building programme of the hospital has unfortunately been subjected to regrettable delays, due in part to financial stringency and in part to difficulty in obtaining materials.

The Epidemic Cordon.—Still consists of a great number of highly unsuitable mat huts. Absestos-cement sheeting was obtained from England in the autumn for the erection of proper pavilions, but the absence of a credit for their construction prevented anything from being done.

The extension of the Nursing Sisters' Quarters and the House for Qabilas and Assistant Female Pupil Nurses, approved in 1919–1920 budget, though built during the year, are not

yet ready for occupation.

Three important buildings the construction of which is approved in principle have not yet been commenced. These are:—

House for Medical Officers.

New Administration block.

New First Class Patients' Pavilion.

Associated with the construction of a new administration block, is the remodelling of the old administration block to provide improved accommodation for laundries, cereal store, drug-store, etc.

The store accommodation at the Fever Hospital is quite inadequate and must be considered as one of the factors responsible for the deficiencies of equipment revealed

at the stocktaking carried out in October 1920.

The roofs of four large wards in two of the blocks having been found to be unsafe, these were most thoroughly repaired by the Department of Public Works in the spring.

#### WATER SUPPLY.

In April the water supply of the hospital became seriously deficient in quantity. This had occurred at times in previous years, but on the occasion in question parts of the hospital such as the kitchen, laundry, and certain of the W.C.s, were without water.

It became necessary therefore to take immediate action in the matter. This was done, and in a commendably short space of time the 6-in. main, hitherto stopping short at the gate, was continued a sufficient distance into the hospital grounds to provide an ample water supply and the internal canalization was partially remodelled. The work was carried out by the Water Company at a cost of L.E. 388·170 milliemes. The water mains are now adequate for all calls that may be made on them.

### SUMMARY OF ADMISSIONS.

During the year 1920 there were 3,152 admissions to the Government Fever Hospital, as compared with 5,530 in 1919. Of these admissions, 2,452 were males and 700 females. See Table XX.

The number of patients admitted each month was 159 in January, 231 in February, 358 in March, 547 in April, 552 in May, 448 in June, 277 in July, 192 in August, 134 in September, 110 in October, 85 in November, and 59 in December. See Table XXI.

The admissions consisted of 109 cases of small-pox, 54 of chicken-pox, 43 of measles, 9 of scarlet fever, 172 of typhoid fever, 918 of typhus fever, 568 of relapsing fever, 17 of cerebro-spinal fever, 59 of diphtheria, 20 of mumps, 546 of influenza, 8 of erysipelas, 9 of paratyphoid, 1 of para-Malta, and 619 other cases consisting of 342 cases sent to Hospital under mistaken diagnosis of infectious diseases, 164 persons sent in under observation

in whom no disease of any sort manifested itself, and 113 mothers of young children and other persons accompanying patients. The 342 cases sent to Hospital under a mistaken diagnosis of infectious disease were found on examination to consist of 53 of gastroenteritis, 44 of malaria, 40 of pneumonia, 39 of bronchitis, 14 of tuberculosis, 4 of whooping cough, 23 of tonsilitis, 18 of dysentery, 9 of rheumatism, 12 of various skin diseases, and 86 other cases of a most diverse nature consisting of syphilis, prolapse of uterus, gangrene, tumour of brain, heart disease, mania, etc.

TABLE XX.—GOVERNMENT FEVER HOSPITAL.

MALE AND FEMALE PATIENTS ADMITTED EACH MONTH AND THE DISEASES FOR WHICH
THEY WERE ADMITTED IN 1920.

|             |                |           |               |               |                |   | ADM                                      |                  |                       |  |  |   |             |                 | -                                      |  |  |                   |                |
|-------------|----------------|-----------|---------------|---------------|----------------|---|--|------------------|-----------------------|--|--|---|-------------|-----------------|--|--|--|-------------------|----------------|
| Month.      | SEX.           | Smallpox. | Chicken-pox.  | Measles.      | Scarlet Fever. | Typhoid Fever.                            | Typhus Fever.                            | Relapsing Fever. | Cerebro-spinal Fever. | Diphtheria.                            | Mumps.                                 | Influenza.                              | Erysipelas. | Other Diseases. | Observation Cases.                     | Persons accompanying Sick.             | Paratyphoid Fever.                     | Para-Malta Fever. | TOTALS.        |
| January {   | Male<br>Female | 8         | 1             | 1             |                | 5   | 16<br>1                                  | 3                | _1                    | $\frac{1}{2}$                          | 1                                      | 76<br>13                                | _           | 19              | 3                                      | $\frac{4}{2}$                          | _1                                     | <u> </u>          | 139<br>20      |
| February {  | Male<br>Female | 15<br>9   | 5<br>3        | 3             | _              | $\frac{6}{2}$                             | 19<br>3                                  | 13               | 9                     | $\begin{vmatrix} 2\\1 \end{vmatrix}$   | <br> -                                 | 93<br>7                                 | 1           | 14<br>1         | 10 5                                   | 9                                      | _                                      | 1                 | 191 ° 40       |
| March {     | Male<br>Female | 17<br>10  | 6<br>4        | $\frac{6}{2}$ | _              | 5<br>2                                    | 91<br>39                                 | 44 3             | 1                     | 3                                      | _                                      | $\begin{bmatrix} 50 \\ 9 \end{bmatrix}$ | 1           | 17<br>3         | 25                                     | 3<br>14                                | _                                      | _<br>_            | 269<br>89      |
| April {     | Male<br>Female | 9 5       | 11<br>5       | 5<br>5        | _              | $\begin{bmatrix} 6 \\ 2 \end{bmatrix}$    | $\begin{array}{c} 216 \\ 64 \end{array}$ | 83<br>8          | 2                     |  |  | 48 5                                    | <u>-</u>    | 30<br>9         | 15<br>6                                | 1<br>11                                | _                                      | _                 | 426<br>121     |
| May {       | Male<br>Female | 13<br>10  | $\frac{6}{4}$ | 8             | $\frac{2}{-}$  | $\frac{6}{4}$                             | 176<br>53                                | 115<br>17        | 1                     | $\begin{array}{c c} 2\\ 1 \end{array}$ | _                                      | $42 \\ 5$                               | 1           | 27<br>9         | 17<br>8                                | 5<br>14                                | <u></u>                                | _<br>_            | 417<br>135     |
| June {      | Male<br>Female | 6         | $\frac{2}{2}$ | $\frac{4}{2}$ | 2              | _   | 109<br>42                                | 152<br>17        | 1                     | $\frac{2}{2}$                          | $\begin{bmatrix} 2 \\ - \end{bmatrix}$ | 26<br>8                                 | _           | 26<br>12        | $\begin{bmatrix} 6 \\ 4 \end{bmatrix}$ | 1 9                                    | _                                      |                   | 349<br>99      |
| July {      | Male<br>Female | 1         | _             | <u> </u>      | =              | 13<br>7                                   | 40<br>14                                 | 74               | <u> </u>              | 1                                      | 1 —                                    | 24<br>8                                 | <u> </u>    | 37<br>8         | 26<br>3                                | 1 7                                    | 1                                      | _                 | 219<br>58      |
| August {    | Male<br>Female | 3         | _             | 2             | <u>1</u>       | 27<br>7                                   | 21<br>7                                  | 13               |                       | 5<br>—                                 | 7                                      | 27<br>9                                 | 1           | 27<br>8         | 13<br>4                                | $\begin{vmatrix} 1 \\ 2 \end{vmatrix}$ | 2                                      | _                 | 150<br>42      |
| September { | Male<br>Female | _1        | 1             | _             |                | 32<br>7                                   | 3  | 6                | 1                     | 5                                      | 4                                      | 19<br>6                                 |             | 20              | 8                                      | 3 5                                    | 3                                      | <u> </u>          | 107<br>27      |
| October {   | Male<br>Female |           | 1             | _             | _              | $\begin{vmatrix} 14 \\ 7 \end{vmatrix}$   | <u>-</u>                                 | 1                | _                     | 8 2                                    | 1                                      | 34<br>4                                 | 1           | 20<br>6         | 3                                      | 5                                      | _                                      | _                 | 83<br>27       |
| November {  | Male<br>Female | _         | 1             | 1             | 1              | 8   | 2  | 2                | _                     | 9                                      |  | 17<br>2                                 | _           | 17<br>2         | 1                                      | $\frac{-}{12}$                         | _                                      | _                 | 58<br>27       |
| December {  | Male<br>Female | _         | 1             | _             | 1              | 3   | 1  | 3                | _                     | 8 4                                    | 1                                      | 12<br>2                                 | _           | 11<br>2         | 3                                      | 4                                      | _                                      | _                 | 44<br>15       |
| 1919 {      | Male<br>Female | 73<br>36  | 34<br>20      | 23<br>20      | 8              | $\begin{bmatrix} -25 \\ 47 \end{bmatrix}$ | 694<br>224                               | 509<br>59        | 16<br>1               | 46<br>13                               | 19<br>1                                | 468<br>78                               | 5 3         | 275<br>67       | 130<br>34                              | 19<br>94                               | $\begin{bmatrix} 7 \\ 2 \end{bmatrix}$ |                   | $2,452 \\ 700$ |
| T           | OTALS          | 109       | 54            | 43            | 9              | 172                                       | 918                                      | <br>568          | 17                    |  | 20                                     | 546                                     | 8           | 342             | 164                                    | 113                                    | 9                                      | 1                 | 3,152          |

Of the 3.152 admissions, 83 were 1st class, 290 2nd class, and 2,779 3rd class. See Table XXI.

The admissions from the eight principal notifiable diseases (small-pox, measles, scarlet fever, diphtheria, typhoid fever, typhus fever, relapsing fever, and cerebro-spinal fever) were 1,895.

TABLE XXI.—GOVERNMENT FEVER HOSPITAL.

ADMISSIONS PER MONTH BY CLASSES AND SEX DURING 1920.

| VI comes  |             | SE        | CX.     | CLASS. |         |        |  |  |  |  |  |
|-----------|-------------|-----------|---------|--------|---------|--------|--|--|--|--|--|
| Month.    | Admissions. | Male.     | Female. | First. | Second. | Third. |  |  |  |  |  |
|           |             |           |         |        |         |        |  |  |  |  |  |
| January   | 159         | 139       | 20      | 2      | 10      | 147    |  |  |  |  |  |
| February  | 231         | 191       | 40      | 3      | 13      | 215    |  |  |  |  |  |
| March     | 358         | 269       | 89      | 7      | 36      | 315    |  |  |  |  |  |
| April     | 547         | 426       | 121     | 11     | 56      | 480    |  |  |  |  |  |
| May       | 552         | 417       | 135     | 25     | 53      | 474    |  |  |  |  |  |
| June      | 448         | 349       | 99      | 1      | 34      | 413    |  |  |  |  |  |
| July      | 277         | 219       | 58      | 4      | 20      | 253    |  |  |  |  |  |
| August    | 192         | 150       | 42      | 5      | 20      | 167    |  |  |  |  |  |
| September | 134         | 107       | 27      | 3      | 17      | 114    |  |  |  |  |  |
| October   | 110         | 83        | 27      | 6      | 15      | 89     |  |  |  |  |  |
| November  | 85          | <b>₹8</b> | 27      | 9      | 8       | 68     |  |  |  |  |  |
| December  | 59          | 44        | 15      | 7      | 8       | 44     |  |  |  |  |  |
| Total     | 3,152       | 2,452     | 700     | 83     | 290     | 2,779  |  |  |  |  |  |

From the Hospital admissions, however, should be deducted 42 military patients. There were 452 deaths in the Hospital during 1920 or, estimated on the 3,152 admissions, 14.34 per cent of the cases admitted. See Table XXIII.

Of these 35 were due to smallpox, giving a hospital case-mortality of 32·1 per cent for this disease, 255 to typhus with a case-mortality of 27·7 per cent, 56 to typhoid with a case-mortality of 32·5 per cent, 18 to relapsing with a case-mortality of 1·2 per cent, 7 to influenza with a case-mortality of 1·2 per cent, 4 to diphtheria with a case-mortality of 6·7 per cent, 1 to chicken-pox with a case-mortality of 1·8 per cent, 2 to measles with a case-mortality of 4·6 per cent, 1 to paratyphoid with a case-mortality of 11·1 per cent, 13 to cerebro-spinal fever with a case-mortality of 12·5 per cent, 2 to tetanus, 4 to tuber-culosis, 6 to enteritis, and 20 to pneumonia.

In addition there were 27 deaths amongst patients sent in under a mistaken diagnosis of infectious disease and whose condition on arrival did not permit of a refusal of admission.

These were 5 acute bronchitis, 2 senility, 4 dysentery, 1 premature labour, 4 miliary tuberculosis, 2 peritonitis, 1 rheumatic fever, 3 gangrene of legs, 4 heart diseases, and 1 encephalitis lethargica.

Included amongst the 2,452 male admissions were 429 sick convicts from the Cairo Prisons. Of these, 60 were suffering from typhus, 27 from typhoid, 8 from measles, 124 from influenza, 1 from erysipelas, 147 from relapsing fever, 1 from diphtheria, 1 from

cerebro-spinal fever, 4 from malaria, 10 from mumps, 2 from tuberculosis, 3 from pneumonia, 3 from bronchitis, 3 from tonsilitis, 8 from enteritis, 1 from dysentery, 2 from skin diseases, 2 from glands in the neck, 1 from pleurisy with effusion, 1 from liver abscess. 20 of the observation cases sent in under mistaken diagnosis were found not to be suffering from any disease. See Table XXIV.

TABLE XXII.- GOVERNMENT FEVER HOSPITAL.

ADMISSIONS BY CLASSES PER MONTH AND THE DISEASES FOR WHICH THEY WERE ADMITTED DURING 1920.

| DURING 1920.   |                          |  |                 |              |   |  |   |   |                       |                |          |                 |             |   |                    |   |                    |                   |  |
|--|--------------------------|--|-----------------|--------------|---|--|---|---|-----------------------|----------------|----------|-----------------|-------------|---|--------------------|---|--------------------|-------------------|--|
| Month.   | CLASS.                   | Smallpox.                                    | Chicken-pox.    | Measles.     | Scarlet Fever.                          | Typhoid Fever.                                     | Typhus Fever.                               | Relapsing Fever.                                    | Cerebro-spinal Fever. | Diphtheria.    | Mumps.   | Influenza.      | Erysipelas. | Other Diseases.                               | Observation Cases. | Persons<br>accompanying Sick                  | Paratyphoid Fever. | Para-Malta Fever. | Total.   |
| January {  | First<br>Second<br>Third | 1<br>1<br>6                                  | <u> </u>        | -<br>1<br>1  |   | <u>-</u>   |   | _<br>   | <u>-</u>              | 1<br>1<br>1    | <u>-</u> | <u>-</u>        | _<br>_<br>_ | -<br>1<br>18                                  | $\frac{-}{3}$      |   | <u>-</u>           |                   | $\frac{2}{10}$ 147   |
| February {   | First<br>Second<br>Third | $\begin{bmatrix} 1 \\ 7 \\ 16 \end{bmatrix}$ | -<br>2<br>6     |              | <u> </u>                                | - 8  | $\begin{array}{c} 2\\ 3\\ 17 \end{array}$   | <br>13  | <u>-</u>              | <u>-</u>       | —<br>—   | 100             | _<br>_<br>1 | $\begin{vmatrix} - \\ 15 \end{vmatrix}$       | —<br>15            | -<br>1<br>8                                   | _<br>_<br>_        | $-\frac{1}{1}$    | 3<br>13<br>215   |
| March {  | First<br>Second<br>Third | $\begin{array}{c} 1 \\ 5 \\ 21 \end{array}$  | 2<br>- 2<br>- 6 |              | _<br>_                                  | <u>-</u>   | 4<br>20<br>106                              | $\frac{-}{47}$                                      |                       | - 3            |          | <br>2<br>57     | -<br>1      | $\begin{array}{c c} - \\ 1 \\ 19 \end{array}$ | $-\frac{1}{27}$    | $\begin{array}{ c c }\hline 3\\14\end{array}$ |                    |                   | 7<br>36<br>315   |
| April }  | First<br>Second<br>Third | -<br>6<br>8                                  | $-\frac{4}{12}$ | 1<br>2<br>7  |   | <br>1<br>7   | 9<br>38<br>233                              | <br>  | $-\frac{1}{2}$        | _              |          | $\frac{-}{53}$  | <u>-</u>    | $\frac{1}{38}$                                | 1<br>20            | $\begin{bmatrix} 1\\1\\10 \end{bmatrix}$      |                    |                   | $\begin{array}{c} 11\\56\\480 \end{array}$                       |
| May {  | First<br>Second<br>Third | $\begin{array}{c} 1 \\ 8 \\ 14 \end{array}$  | $\frac{3}{7}$   | 1<br>1<br>8  |   | $\frac{-}{10}$                                     | 15<br>31<br>183                             | 9<br>123  |                       | 1<br>1<br>1    |          | 2<br>45         | <u>-</u>    | 36  | $\frac{-}{24}$     | $\frac{3}{16}$                                | 1<br>_             | _<br>             | $   \begin{array}{r}     25 \\     53 \\     474   \end{array} $ |
| June {   | First<br>Second<br>Third | <u>-</u>                                     | <u>-</u>        | <br>1<br>5   | $\begin{bmatrix} -2\\ - \end{bmatrix}$  | _  | $\begin{array}{c} 1\\18\\132\end{array}$    | $\begin{bmatrix} -\frac{3}{3} \\ 166 \end{bmatrix}$ | 1                     |                |          | 34              | _           | <br>4<br>44                                   | $\frac{-}{10}$     | $-\frac{3}{7}$                                | _                  | _<br>_<br>_       | $\begin{array}{c} 1\\34\\413\end{array}$                         |
| July {   | First<br>Second<br>Third | $\frac{-}{2}$                                | _               | <u>-</u>     |   | 1<br>5<br>14                                       | $\begin{array}{c} 1 \\ 6 \\ 47 \end{array}$ | $-\frac{1}{81}$                                     |                       | <u> </u>       |          | $\frac{-1}{31}$ | <u> </u>    | 1<br>1<br>43                                  | <u>-</u> 29        | 1<br>4<br>3                                   | <u>-</u>           |                   | $\frac{4}{20}$ 253   |
| August   | First<br>Second<br>Third |  | _               | - $2$        | _                                       | $\begin{array}{c} 1\\7\\26\end{array}$             | 4<br>24                                     | $-\frac{1}{16}$                                     |                       |                | <u>-</u> | $\frac{1}{35}$  | <u>-</u>    | $\begin{array}{c} 1\\3\\31\end{array}$        |                    | $\frac{1}{2}$                                 | $\frac{1}{2}$      | _                 | $\frac{5}{20}$ $\frac{167}{}$                                    |
| September {  | First<br>Second<br>Third |  | <u>-</u>        | _            | <u>-</u>                                | $\begin{bmatrix} 2\\6\\31 \end{bmatrix}$           | _<br>_<br>3                                 | _<br>   | <u>-</u>              |                | <u>-</u> |                 | _           | $\frac{-}{2}$ $25$                            | _<br>8             | 1<br>3<br>4                                   |                    |                   | 3<br>17<br>114   |
| October $\left\{ \begin{array}{c} \end{array} \right.$ | First<br>Second<br>Third | _  | 1               |              |   | $\begin{array}{c} 2\\3\\16\end{array}$             | _<br>_<br>1                                 | <u>-</u>  |                       | 2<br>7<br>1    | <u>-</u> | $\frac{-1}{37}$ |             | 1<br>2<br>23                                  | 4                  | $\begin{bmatrix} 1\\1\\3 \end{bmatrix}$       | _                  | _                 | 6<br>15<br>89  |
| November {   | First<br>Second<br>Third |  | $-\frac{1}{2}$  | _            | $\begin{bmatrix} -2 \\ - \end{bmatrix}$ | $\begin{bmatrix} 1 \\ 2 \\ 11 \end{bmatrix}$       | $-\frac{2}{-}$                              | <u>-</u>  |                       | 3<br>4<br>3    |          | <u>-</u><br>19  |             | $\frac{-}{19}$                                | <u>-</u><br>1      | $\frac{3}{9}$                                 | _                  |                   | 9<br>8<br>68   |
| December {   | First<br>Second<br>Third | _  | 1               |              | _<br>_1<br>_                            | $-\frac{1}{5}$                                     | 1<br>—                                      | <u>-</u>  | _                     | 3<br>3<br>6    | <u>-</u> | 1<br>13         |             | 1<br>1<br>11                                  | 3                  | 1<br>1<br>2                                   | _<br>_<br>_        |                   | 7<br>8<br>44   |
| 1919 {   | First<br>Second<br>Third | 4<br>29<br>76                                | 6<br>9<br>39    | 2<br>7<br>34 | 5<br>4                                  | $\begin{array}{c} - \\ 7 \\ 25 \\ 140 \end{array}$ | 35<br>122<br>761                            | -<br>16<br>552                                      |                       | 10<br>28<br>21 | <u>-</u> | 1<br>7<br>538   |             | $\frac{4}{16}$ $322$                          |                    | 12<br>21<br>80                                | 2<br>1<br>6        |                   | 83<br>290<br>2,779   |
| То   | TALS                     | 109  | 54              | 43           | 9                                       | 172  | 918   | 568   | 17                    | 49             | 20       | 546             | 8           | 342   | 164                | 113   | 9                  | 1                 | 3,152  |

Of the convict patients 32 died, death being due to typhus in 16, typhoid in 8, influenza in 2, cerebro-spinal fever in 2, relapsing fever in 1, pneumonia in 1, and dysentery in 1.

The convict case-mortality was therefore 7.4 per cent of the total number of convicts admitted in 1920. See Table XXV.

Table XXIII.—Government Fever Hospital Monthly Mortality Incidence in 1920.

| Month.  | Smallpox.                                | Typhus Fever.  | Typhoid Fever.  | Relapsing Fever.  | Influenza. | Diphtheria. | Chicken-pox. | Measles. | Paratyphoid Fever. | Tetanus. | Erysipelas. | Cerebro-spinal Fever                                | Tuberculosis. | Enteritis. | Pneumonia.  | Observation.   | TOTAL.   |
|---------|--|--|---|---|------------|-------------|--------------|----------|--------------------|----------|-------------|---|---------------|------------|---|--|--|
| January | . 7<br>5<br>1<br>13<br>. 6<br>. —<br>. — | 3<br>5<br>18<br>66<br>70<br>56<br>24<br>111<br>1<br>10<br>1<br>3 | $ \begin{array}{c c} 4 \\ 4 \\ -3 \\ 3 \\ -5 \\ 10 \\ 11 \\ -4 \\ - \end{array} $ | -   1   6   5   5   1   -     -     -     -     -     -       -       -       - | 5 2        |             | 1            |          |                    |          |             | -<br>4<br>2<br>3<br>1<br>-<br>1<br>1<br>1<br>-<br>- |               |            | $ \begin{array}{c c} 3 \\ - \\ 5 \\ 4 \\ 1 \\ 2 \\ - \\ 1 \\ 1 \\ 2 \end{array} $ | $-\frac{1}{2}$ $\frac{4}{5}$ $\frac{6}{3}$ $\frac{1}{2}$ | 15<br>27<br>28<br>84<br>104<br>76<br>43<br>29<br>16<br>15<br>8 |
| Total   | . 35                                     | $\begin{vmatrix} 255 \end{vmatrix}$                              | 56  | 18  | 7          | 4           | 1            | 2        | 1                  | 2        | 1           | 13  | 4             | 6          | 20  | 17   | 452  |

In the hospital laboratory, 1,862 specimens were examined during 1920. These consisted of 44 blood films examined for malaria and 568 for relapsing fever. 172 Widal's reaction were carried out for typhoid and paratyphoid A and B, 20 for Malta and para-Malta, 918 for Weil-Felix. 58 sputa specimens were examined for the tubercle bacillus, 65 swabs for diphtheria, 17 specimens of fluid for cerebro-spinal fever.

Besides the above examinations many others had to be carried out at the Hygienic Institute when the Hospital had no medical officers available for that work.

TABLE XXIV.—MONTHLY CONVICT ADMISSIONS AND DISEASES FROM WHICH ADMITTED IN 1920.

| Month.   | Typhus Fever.                               | Typhoid Fever.  | Measies. | Influenza.                                    | Erysipelas. | Cerebro-Spinal Fever. | Relapsing Fever                                    | Diphtheria. | Malaria. | Mumps. | Tuberculosis. | Pneumonia. | Bronchitis.           | Tonsilitis. | Enteritis.                      | Dysentery. | Skin Diseases. | Glands of Neck. | Pleurisy with effusion. | Liver Abscess. | Observation.  | TOTAL.  |
|--|---|---|----------|---|-------------|-----------------------|--|-------------|----------|--------|---------------|------------|-----------------------|-------------|---------------------------------|------------|----------------|-----------------|-------------------------|----------------|---|---|
| January February March April May June July August September October November | $\begin{bmatrix} 7\\17\\7\\1 \end{bmatrix}$ | 4<br>3<br>2<br>1<br>-3<br>1<br>3<br>1<br>2<br>2<br>1<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | 1 3 4    | 32<br>40<br>15<br>14<br>8<br>3<br>6<br>5<br>— |             | 1                     | -<br>1<br>1<br>11<br>12<br>74<br>47<br>1<br>-<br>- |             |          |        |               |            | 1<br>1<br>1<br>1<br>- |             | -<br>3<br>-<br>1<br>-<br>1<br>- |            |                |                 |                         |                | 2<br>2<br>1<br>5<br>4<br>-<br>1<br>4<br>1<br>-<br>- | 41<br>56<br>35<br>49<br>31<br>103<br>71<br>16<br>12<br>9<br>3 |
| Total  | 60  | 27  | 8        | 124   | 1           | 1                     | 147  | 1           | 4        | 10     | 2             | 3          | 3                     | 3           | 8                               | 1          | 2              | 2               | 1                       | 1              | 20  | 429   |

Table XXV.—Monthly Convict Mortality and Causes of Deaths in 1920.

| Month.  | Typhus<br>Fever.                          | Typhoid<br>Fever.                    | Influenza. | Cerebro-<br>Spinal.                       | Relapsing. | Pneumonia.                      | Dysentery.                      | TOTAL.  |
|---|---|--------------------------------------|------------|---|------------|---------------------------------|---------------------------------|---|
| January February March April May June July August September October November December | 1<br>2<br>2<br>5<br>1<br>4<br>1<br>—<br>— | 1<br>2<br>1<br>1<br>-<br>1<br>1<br>- |            | -<br>-<br>1<br>-<br>-<br>-<br>1<br>-<br>- |            | -<br>-<br>-<br>-<br>-<br>-<br>1 | -<br>-<br>1<br>-<br>-<br>-<br>- | $ \begin{array}{c} 2 \\ 6 \\ 3 \\ 7 \\ 2 \\ 4 \\ 3 \\ 1 \\ 1 \\ 2 \\ -1 \end{array} $ |
| TOTAL   | 16  | 8                                    | 2          | 2   | 1          | 2                               | 1                               | 32  |

#### VI.—AMBULANCE SERVICE.

During 1920 there were 2,408 calls made on the Ambulance Service, as against 3,472 in 1919 and 4,904 in 1918.

Out of this total, 31 journeys were made by the first class ambulance, 134 by the second class, 160 by the third class, and 1,720 by the hooded carts, whilst 363 journeys were made by the motor ambulances which are now five in number, the fifth having been received on December 15.

## VII.—DEATH INQUIRIES.

During 1920 the number of uncertified deaths, which required investigation because they were deaths of persons who had received no medical attendance during their last illness, was 18,814. Therefore the proportion of uncertified deaths to the total of 27,619 deaths which occurred in Cairo is 68·1 per cent as against 70·7 per cent in 1919 and 72·4 per cent in 1918.

This is the lowest percentage for some years although the proportion still remains very

high. See Table XXVI.

TABLE XXVI.—DISTRICT PERCENTAGE OF UNCERTIFIED DEATHS, 1914 TO 1920.

| DISTRICT.   | 1914  | 1915   | 1916  | 1917  | 1918  | 1919  | 1920  |
|---|---|--|---|---|---|---|---|
| Mûsky Bâb el Sha'rîya Ezbekîya 'Abdîn Saîyeda Zeinab Helwân Khalîfa Darb el Ahmar Gamâlîya Shubra | 7914  Per Cent.  53.6 73.8 34.4 58.6 79.2 73.9 87.5 70.5 74.1 72.6 89.2 | Per Cent.  48.6 73.3 45.5 72.6 77.4 63.5 87.9 78.2 77.4 91.1 | Per Cent.  45.1 66.0 36.4 63.4 74.3 73.8 90.0 78.1 73.3 74.8 90.4 | Per Cent.  45.2 64.1 31.8 63.4 69.9 68.8 88.0 76.9 77.2 75.5 87.4 | Per Cent.  30.7 65.7 37.2 61.5 68.3 65.3 90.8 72.5 71.6 78.5 88.0 | Fer Cent.  50.3 61.8 31.3 63.1 72.6 61.2 85.1 79.6 67.7 75.8 86.1 | Per Cent.  46.7 60.4 23.3 58.9 58.0 60.7 85.6 71.7 68.6 74.3 83.4 |
| Bulaq Wâyli   | 76.1 66.7 73.8  | 87·3<br>60·5<br>77·5   | 89.6<br>67.8<br>74.8  | $ \begin{array}{c c} 89.5 \\ 67.0 \\ \hline 73.4 \end{array} $    | 86.8<br>63.1<br>72.4  | 87·2<br>61·8<br>70·7  | 84·4<br>68·2<br>68·1  |

TABLE XXVII.—DISTRIBUTION OF UNCERTIFIED DEATHS AND DEATH INQUIRIES IN THE VARIOUS DISTRICTS IN 1920.

|   |  |   | Unce  | RTIFIED DE   | EATHS.                         |   | aths  |
|---|--|---|---|--|--------------------------------|---|---|
| DISTRICT.   | All Deaths.  | Investigated by District Medical Officers.  | Investigated by District Hakímas.   | Investigated by Village Sanitary Barbers.          | Investigated by Village Dáyas. | District Totals.  | Percentage of Deaths  |
| Mûsky          Bâb el Sha'rîya          Ezbekîya          'Abdîn          Saiyeda Zeinab          Helwân          Khalîfa          Darb el Ahmar          Gamâliya          Shubra          Bûlâq       I         Bûlâq II          Old Cairo          Wâyli          Zeitûn          'Abbâsîya | $   \begin{array}{c}     769 \\     2,377 \\     1,596 \\     1,861 \\     2,736 \\     308 \\     2,298 \\     2,334 \\     2,243 \\     2,771 \\     4,135 \\     1,431 \\     2,760   \end{array} $ | $\begin{array}{c} 294 \\ 1,207 \\ 303 \\ 922 \\ 1,010 \\ 163 \\ 1,622 \\ 1,385 \\ 1,174 \\ 1,500 \\ 1,297 \\ 1,025 \\ 981 \\ 435 \\ 807 \\ \end{array}$ | 65<br>228<br>69<br>174<br>577<br>24<br>345<br>289<br>365<br>223<br>901<br>225<br>224<br>35<br>160 | -<br>-<br>-<br>-<br>-<br>334<br>-<br>-<br>423<br>- |                                | 359<br>1,435<br>372<br>1,096<br>1,587<br>187<br>1,967<br>1,674<br>1,539<br>2,059<br>2,198<br>1,250<br>1,208<br>916<br>967 | 46.7<br>60.4<br>23.3<br>58.9<br>58.0<br>60.7<br>85.6<br>71.7<br>68.6<br>74.3<br>\$3.4<br>84.4<br>\$68.2 |
| Totals for Cairo  | 27,619   | 14,125  | 3,904   | 757  | 28                             | 18,814  | 68.1  |

Of the 18,814 investigations held, 14,125 or 75.0 per cent were made by the District Medical Officers, 3,904 or 27.7 per cent by the District hakîmas, 757 or 4 per cent by the village sanitary barbers, and 28 or 1 per cent by the village dayas.

The daily average of death inquiries during 1920 was 51·4. The Medical Officers' daily average was 38·7 per cent, the hakîmas' 10·7 per cent, the village barbers' 2·1 per

cent, and the village dayas' 0.07 per cent.

The largest number of investigations was made by the Medical Officer of Khalîfa

who was responsible for 1,622.

The District hakîma of Bûlâq I had the highest record, having made 901 inquiries or 2.5 per day. Sec Table XXVII.

#### VIII.—VACCINATIONS.

During 1920 there were 40,054 vaccinations carried out by the Medical Officers of the Inspectorate and Districts.

Of this total 30,623 were primary vaccinations, 30,215 of which were of native children

and 408 of children of foreign birth.

This is as compared with 27,292 in 1919 and 25,613 in 1918. The remaining 9,431 were secondary vaccinations of contacts of small-pox or of persons voluntarily applying for this.

Of these revaccinations 9,174 were vaccinations of natives and 257 of foreigners, whilst 9,151 were carried out by the District Medical Officers and 280 by the Medical Officers of the Inspectorate.

|           |                       |           |                 | V        | =====<br>TIA / | ALEX    | AN DI     | RIA.   |        |           |           |   |                       |         |                 |           |               |        | V      | IA PO | RT      |
|-----------|-----------------------|-----------|-----------------|----------|----------------|---------|-----------|--------|--------|-----------|-----------|---|-----------------------|---------|-----------------|-----------|---------------|--------|--------|-------|---------|
| -         |                       |           |                 | Por      | RT OF          | ORIGI   | IN.       |        |        |           |           | of  |                       |         |                 |           |               |        |        | Port  | OF      |
| Month.    | Number of Passengers. | Beyrouth. | Constantinople. | Mer-ina. | Smyrna.        | Piræus. | Salonica. | Corfu. | Zante. | Observed. | Untraced. | Departed before Full Perlod<br>Observation completed. | Number of Passengers. | Pirans. | Constantinople. | Beyrouth. | Alexandretta. | Basta. | Jaffà. | Aden. | Jibuti. |
| January   | 236                   | 73        | 44              | 7        | 30             | 81      |           | 1      |        | 222       | 12        | 2   | 182                   |         | 52              | 117       |               |        | 6      | _     |         |
|           |                       |           | 91              | 7        | 36             | 89      |           | 1      |        | 264       | 9         | $oxed{2}$   | 128                   | 2       | 37              | 86        |               | 1      |        |       |         |
| February  | 275                   | 51        |                 |          | l              |         |           |        |        | 291       | 6         | $\begin{bmatrix} 2 \\ 6 \end{bmatrix}$                | 188                   |         | 13              | 160       |               |        |        | 2     |         |
| March     | 303                   | 56        | 85              |          | 33             | 97      | 1         | 23     | _      |           |           |   |                       |         |                 |           |               |        |        |       |         |
| April     | 161                   | 42        | 80              | -        | _              | 24      | 8         | 7      | _      | 152       | 4         | 5   | 191                   | _       | 65              | 125       | _             | _      |        |       |         |
| May       | 364                   | 116       | 76              | 46       | 12             | 95      | 12        | 7      | _      | 334       | 17        | 13  | 194                   |         | 26              | 161       | _             | _      | _      | _     |         |
| June      | 249                   | 36        | 42              | 101      | 20             | 45      | 5         |        | _      | 227       | 13        | 9   | 99                    | 12      | 5               | 75        | _             | _      | 1      | _     | -       |
| July      | 284                   | 135       | 51              | _        | 1              | 82      |           | 15     | _      | 281       | 2         | 1   | 154                   | _       | 10              | 144       | _             | _      | _      |       |         |
| August    | 375                   | 124       | 37              | 2        | 55             | 84      | 45        | 28     | _      | 366       | 9         | _   | 130                   |         | 66              | 62        | 2             | _      | _      | _     |         |
| September | 571                   | 150       | 107             | 44       | 34             | 208     |           | 28     | _      | 561       | 5         | 5   | 252                   | _       | 31              | 218       |               | _      | _      | -     |         |
| October   | 791                   | 74        | 152             | 32       | 48             | 416     |           | 69     | _      | 242       | 37        | 12  | 420                   | _       | 63              | 320       | _             | _      |        | _     |         |
| November  | 603                   | 125       | 165             | 32       | 134            | 74      | _         | 64     | 9      | 590       | 12        | 1   | 303                   | _       | 67              | 911       | _             | _      | _      | -     | _       |
| December  | 427                   | 52        | 192             | 14       | 55             | 44      | 60        | 10     | _      | 413       | 6         | 8   | 301                   |         | 43              | 239       |               | -      |        | _     |         |
| Total     | 4639                  | 4034      | 1122            | 293      | 458            | 1339    | 131       | 253    | 9      | 4463      | 132       | 64  | 2542                  | 14      | 478             | 1918      | 2             | 1      | 7      | 2     |         |

| SAID          | •       |           |            |          |           |           |           |   |                       |         |           |        |              |         | VIA   | SUEZ      | •       |            |            |           | 1         |           |  |
|---------------|---------|-----------|------------|----------|-----------|-----------|-----------|---|-----------------------|---------|-----------|--------|--------------|---------|-------|-----------|---------|------------|------------|-----------|-----------|-----------|--|
| Origi         | (N.     |           |            |          |           |           |           | JO  |                       |         |           |        | P            | ORT (   | OF OR | IGIN.     |         | 1          |            |           |           |           | g of   |
| Dar el Salam. | Bombay. | Calcutta. | Singapore. | Shangai. | Yokohama. | Observed. | Untraced. | Departed before Full Feriod of Observation completed. | Number of Passengers. | Odessa. | Beyrouth. | Basra, | Abu Zeneima. | Jeddah. | Tor.  | Mombassa. | Bombay. | Singapore. | Hong-Kong. | Yokohama. | Observed. | Untraced, | Departed before Full Period of<br>Observation completed. |
|               | j       |           |            |          |           |           |           |   |                       |         |           |        |              |         |       |           |         |            |            |           |           |           |  |
|               | -       | _         |            | -        | 7         | 149       | 24        | 9   | 73                    | -       | 4         | 2      | 3            | 21      | 8     | _         | 14      | 21         |            |           | 67        | 5         | 1  |
|               | 2       |           | _          | _        | _         | 107       | 16        | 5   | 54                    | -       | _         | -      | 12           | 5       | 2     | -         | 2       | 32         | 1          | -         | 51        | 1         | 2  |
| 9             | _       | _         |            | 3        | _         | 166       | 18        | 4   | 30                    | _       | _         | _      | 9            | 19      | _     | -         | 2       | -          | _          | _         | 21        | 8         | 1  |
| _             | _       | _         | 1          | -        |           | 151       | 29        | 11  | 92                    | _       | _         | 7      | 1            | 69      |       | _         | 15      |            |            |           | 73        | 14        | 5  |
|               | 5       | 1         | _          | _        | 1         | 176       | 13        | 5   | 59                    | 6       | _         | _      | 6            | 34      | 4     | _         | 9       |            |            |           | 44        | 12        | 3  |
| _             | 6       | _         | _          |          |           | 85        | 9         | 5   | 51                    |         |           | 1      | 9            | 29      | 4     | -         | 8       | _          | _          |           | 20        | 29        | 2  |
| _             | _       |           | _          |          | _         | 139       | 12        | 3   | 69                    | _       |           | _      | 8            | 53      | _     |           | 7       | _          |            | 1         | 49        | 20        | _  |
| _             | _       |           | _          | _        | _         | 118       | 7         | 5   | 49                    | _       | _         | 6      | 16           | 27      | _     | _         |         | _          | -          | _         | 38        | 11        | _  |
| _             | _       | _         | _          | 3        | _         | 224       | 24        | 4   | 47                    | _       | _         | 2      | 9            | 17      | 10    | -         | 7       | 2          |            | _         | 20        | 21        | 6  |
| _             | 31      | _         | _          | 4        |           | 364       | 43        | 13  | 119                   | _       | _         | 3      | 9            | 61      | 42    | -         | 2       |            | 2          |           | 100       | 19        |  |
| _             | 25      |           | -          | _        | -         | 269       | 28        | 6   | 55                    | -       | _         | 6      | 7            | 26      | 14    | 2         | -       | -          | _          | -         | 41        | 14        |  |
| -             | 19      | _         | _          | -        | _         | 259       | 37        | 5   | 72                    | -       |           | _      | 18           | 9       | 27    | _         | 18      | _          | _          |           | 54        | 17        | 1  |
| 9             | 88      | 1         | 1          | 10       | 8         | 2207      | 260       | 75  | 770                   | 6       | 4         | 27     | 107          | 370     | 1111  | 2         | 84      | 55         | 3          | 1         | 578       | 171       | 21   |

#### IX.—PASSENGER AND PILGRIM CONTROL SERVICE.

### (a) Passenger Service.

During 1920 the total number of passengers arriving in Cairo and requiring to undergo a period of observation, on account of coming from countries under supervision on account of being infected, was 7,951. This shows a considerable increase over the previous year which had a total of 4,288.

The largest number of passengers came from Syria (2,958) whilst Turkey and Greece come next in numbers, viz. 2,301 and 1,746 respectively.

Of the total number of passengers, 4,639 or 58·3 per cent landed in Alexandria, 2,542 or 32 per cent in Port Said, and 770 or 9·7 per cent in Suez.

Out of the 7,951 passengers, 7,228 or 90.9 per cent were observed during the whole prescribed period, 160 or 2 per cent left Cairo before completing their full period of observation, whilst 563 or 7.1 per cent could not be traced. See Tables XXVIII and XXIX.

Table XXIX.—Number of Passengers from Foreign Countries under Medical Observation who arrived in Cairo during 1920.

| Ports of Origin.          | Via Alexandria.  | Via Port Said. | Via Port Suez.  | Total.                                   |
|---------------------------|------------------|----------------|-----------------|--|
| Syria                     | 1,034            | 1,920          | 4               | 2,958                                    |
| Turkey                    | $1,873 \\ 1,732$ | 478<br>14      | _               | $2,301 \\ 1,746$                         |
| Mesopotamia Palestine     | <u> </u>         | $\frac{1}{7}$  |                 | $\frac{28}{7}$                           |
| Red Sea French Somaliland | _                | $\frac{2}{3}$  |                 | $\frac{590}{3}$                          |
| British East Africa India | _                | $\frac{9}{90}$ | $\frac{2}{139}$ | $\begin{array}{c} 11 \\ 229 \end{array}$ |
| China Japan               |                  | 10<br>8        | 3               | $\frac{13}{9}$                           |
| Russia                    |                  |                | 6               | 6  |
| Total                     | 4,639            | 2,542          | 770             | 7,951                                    |

Besides the above there were also 19,646 Egyptian Labour Corps men coming from the Canal Zone who required to be observed on their arrival in Cairo.

Of these, 16,791 or 85.5 per cent were traced whilst 2,855 or 14.5 per cent could not be found.

Apart from these 19,646 Egyptian Labour Corps men who had been notified to us from Qantara there were 1,914 Labour Corps men who had not been notified to the Inspectorate but who presented themselves for observation. See Table XXX.

TABLE XXX.—RECORD OF EGYPTIAN LABOUR CORPS MEN RETURNING TO CAIRO IN 1920.

| DISTRICT.                              | Number recorded<br>on Lists<br>from Kantara to the<br>Inspectorate.   | Number observed in Qisms Corresponding to Addresses given in the Lists.                             | Number<br>observed at the<br>Inspectorate.  | Number<br>not traced.  | by M<br>Authoriti | mber notified udîrîya Healies for Obserin Cairo. | lth    | Observat                               | er coming upion. whose of shown on Lists. | Names  |
|--|---|---|---|--|-------------------|--|--------|--|---|--------|
| Bâb el Sha <sup>c</sup> rîya<br>Zeitûn | 1,134<br>1,096<br>1,722<br>568<br>1,237<br>1,350<br>264<br>2,330<br>1,103<br>786<br>1,331<br>1,408<br>2,259 | 1,090<br>955<br>1,410<br>474<br>758<br>852<br>200<br>2,060<br>1,064<br>504<br>883<br>1,153<br>1,781 | $ \begin{array}{c c}  & 9 \\  & 40 \\  & 312 \\  \hline  & 18 \\  & 14 \\  \hline  & 46 \\  \hline  & 17 \\  & 12 \\  & 221 \\  & 111 \\  \end{array} $ | 35<br>101<br>-<br>94<br>461<br>484<br>64<br>224<br>39<br>265<br>436<br>34<br>367 |                   | 9<br>56<br>-3<br>3<br>-4<br><br>12<br>157<br>18  | found. | 189 260 18 146 347 50 125 236 56 8 244 | 189                                       | found. |
| Bûlâq ĬI<br>ʿAbdîn                     | 2,160<br>2,160  | 774<br>2,000  | 17<br>16  | 107  | 17<br>89          | 13<br>76   | 13     | 155<br>—                               | 155                                       |        |
| TOTAL                                  | 19,646  | 15,958  | 833   | 2,855  | 387               | 351  | 36     | 1,834                                  | 1,834                                     |        |

### (b) PILGRIM SERVICE.

During 1920 there were 72 passports issued by the Governorate to residents of Cairo wishing to make pilgrimage to Mecca.

Besides these 75 Government employees were given permission to accompany the

Mahmal.

Out of the 72 persons who had passports 71 returned from the Hedjaz and underwent the usual period of observation. The one presumably remained behind, as is sometimes done.

Of the 75 employees 74 returned whilst one did not leave Cairo for the pilgrimage. See Table XXXI.

TABLE XXXI.—YEARLY RECORD OF PILGRIMS IN 1920.

| DISTRICT.   | Pilgrims with Passports issued by the Governorate as recorded n District Registers. | Government Employees accompanying Mahmal as recorded in District Registers.                      | usual  | ns and imployees arned and erved the Period airo.                                   | not lear<br>after ta<br>Pass | who did<br>ve Cairo<br>king out<br>sport<br>nission. | Employ<br>tool<br>Passp<br>Permiss<br>Cairo l<br>were o<br>elsev | ons and rees who cout orts or ion from out who bserved where eturn. | Pilgrims returning<br>from Marlier Pilgrimages<br>than the Last. | and Gov<br>Empl<br>observed<br>who le | rims vernment loyees in Cairo ft from where. |
|---|---|--|--|---|------------------------------|--|--|---|--|---------------------------------------|--|
|   | Pass<br>th<br>th  | accon<br>in Di   | Pilgrims.  | Govt.<br>Employees.   | Pilgrims.                    | Govt.<br>Employees.                                  | Pligfims.  | Govt.<br>Employees.   | Filg<br>from J.  | Pilgrims.                             | Govt.<br>Employees.                          |
| Bâb el Sha'rîya Zeitûn Ezbekîya Old Cairo Khalîfa Shubra Helwân Bûlâq I Mûsky Darb el Ahmar Saiyeda Zeinab 'Abbâsîya Gamâlîya Bûlâq II 'Abdîn | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                               | $ \begin{array}{c c} 12 \\ 1 \\ -1 \\ 12 \\ -1 \\ -1 \\ -26 \\ 2 \\ 19 \\ -2 \\ -2 \end{array} $ | $     \begin{array}{r}                                     $ | 12<br>1<br>1<br>12<br>—<br>—<br>—<br>—<br>—<br>—<br>—<br>—<br>—<br>—<br>—<br>—<br>— |                              |  | -<br>-<br>1<br>-<br>-<br>3<br>-<br>-<br>-                        | -<br>-<br>-<br>-<br>-<br>-<br>-<br>7<br>0<br>1<br>0<br>1            | $     \begin{array}{c}                                     $     |                                       |  |
| Total   | 72  | 75   | 67   | 65  | _                            | 1  | 4  | 9   | 16   | 3                                     | _  |

#### X .- SANITARY CONTROL OF PUBLIC WOMEN.

### (a) Examination Rooms for Native Prostitutes.

The total number of women on the registers during 1920 shows a further diminution, as compared with the last six years, being 1,486 as against 1,601 in 1919 and 1,573 in 1918.

During the year, 342 names were struck off for various reasons, leaving 1,144 at the end of the year, a total which differed but little from that at the end of the previous year.

The number of examinations carried out during the year was 34,485, as compared with 24,980 in 1919. This shows an average of 23·2 examinations per woman.

(a) Bâb el Sha'rîya and Ezbekîya.—The number of women registered in these districts was 1,237, being 112 less than in 1919. Of these, 257 were struck off during the year, leaving a total of 980 on December 31.

The total of examinations held was 30,064, as against 21,829 the previous year, showing

an average of 24.3 examinations per woman.

(b) Abbâssîya.—The number on the books during the year was about the same as in

the previous year, being 150 as against 151.

Those remaining at the end of the year were, however, only 78. The number of examinations carried out was 2,311, which is an average of 15.4 examinations per woman. It will observed that the number of absentees at the weekly examinations is considerable.

(c) Saiyeda Zeinab.—The total number of registered women in this district was 99, as against 101 in 1919. Out of this number 13 were struck off during the year, leaving 86 on the books at the end of the year.

The examinations held totalled 2,110, making an average of 21·3 per woman. See Table XXXII.

Diseases.—The total number of cases of disease discovered as a result of the examinations was 2,559. The actual number of women who were diseased was 947. All these

The total number of cases of syphilis discovered was 225, as compared with 194 in

1919. This shows an increase of 31.

were sent to hospital for treatment.

The number of cases found whilst in the secondary stage was considerably greater than in the previous year, the figure being 186 as compared with 113 in 1919, whilst the primary cases were 42 less than in the previous year.

There were 2,171 cases of gonorrhea, of which 127 were acute and 2,044 chronic.

This shows a diminution of 326 on last year's figures. See Table XXXIII.

#### (b) European Examination Rooms.

The total number of women on the registers during 1920 was 393 as against 437 in 1919. Out of this total 46 were new names whilst 126 were struck off for various reasons such as old age, giving up the life, or having been transferred to the class which sends in weekly certificates from private practitioners. There were, therefore, 267 names on the books at the end of the year.

During 1920 there were 9,894 examinations held, which give an average of 25·2 examinations per woman.

As a result of these weekly examinations 305 cases of disease were discovered, giving a percentage of 3·1 per cent of examinations revealing disease. The actual number of women who were found diseased was 189. See Table XXXIV.

### (c) European Lock Hospital.

During 1920 there were 371 admissions to the hospital. This total included 305 cases from among the women who undergo a weekly examination at the European Examination Rooms, whilst 66 belonged to the class of prostitutes who send in a weekly certificate from private practitioners.

The average number of days in hospital was 16.0. Out of this total number of admissions 38 were suffering from syphilis, *i.e.* 5 primary, 31 secondary, and 1 tertiary.

|       | Percentage of Examinations exposing Diseased Conditions.   | Per Cent.                                    | ∞<br>•≎   | 11.0           | 11.5   |
|-------|--|--|-----------|----------------|--------|
|       | Xumber of Cases of Disease discovered.                     | 2,495  | 168       | 125            | 2,788  |
|       | Number of Cases of Disease sent<br>to Hospital.            | 2,459  | 166       | 120            | 2,745† |
| 1919. | Average Number of Examinations per Woman.                  | 16.2   | 13.5      | 11.2           | 15.6   |
| 19    | Number of Examinations held.                               | 21,829                                       | 2,019     | 1,132          | 24,980 |
|       | Number of Women remaining on Registers at End of the Year. | 982  | 113       | 09             | 1,155  |
|       | Number of Women struck off during the Year.                | 367  | 80        | 41             | 446    |
|       | Yumber of Women on Register.                               | 1,349  | 151       | 101            | 1,601  |
|       | Percentage of Examinations exposing.                       | Per Cent.                                    | 7.3       | 8.9            | 7.4    |
|       | Number of Cases of Disease discovered.                     | 2,247  | 168       | 144            | 2,559  |
|       | Number of Cases of Disease sent to<br>Hospital.            | 823  | 53        | 71             | 947*   |
| 20.   | Average Number of Examinations per Monan.                  | 24.3   | 15.4      | 21.3           | 23.2   |
| 1920. | Number of Examinations held.                               | 30,064                                       | 2,311     | 2,110          | 34,485 |
|       | Number of Women remaining on Registers at End of the Year. | 980  | 78        | 98             | 1,144  |
|       | Number of Women struck off during the Year.                | 257  | 72        | 13             | 342    |
|       | Number of Women on Register.                               | 1,237  | 150       | 66             | 1,486  |
|       | DISTRICT.  | Bâb el Sha <sup>c</sup> rîya and<br>Ezbekîya | 'Abbâsîya | Saiyeda Zeinab | Totals |

\* Total number of women. † This total includes women who have been sent to hospital on more than one occasion during the year.

The average number of days in hospital for this disease was 19.2.

The total number of cases of gonorrhoa was 295 made up of 15 acute, 6 sub-acute, and 274 chronic.

The average period of detention of this disease was 16.1 days.

There were also 7 cases of chancroid who remained in hospital, on an average 21·1 days.

TABLE XXXIII.—VENEREAL DISEASE DISCOVERED AMONG REGISTERED NATIVE WOMEN.

|                                     |   | 19           | 20                 |        |   | 19   | 19                 |        |
|-------------------------------------|---|--------------|--------------------|--------|---|--|--------------------|--------|
| Disease.                            | Bâb el<br>Sha <sup>ç</sup> riya<br>and<br>Ezbekîya. | ¢Abbâsîya.   | Saiyeda<br>Zeinab. | TOTAL. | Bâb el<br>Sha <sup>c</sup> riya<br>and<br>Ezbekîya. | ¢Abbasîya.   | Saiyeda<br>Zeinab. | TOTAL. |
| Syphilis Primary Secondary Tertiary | 37<br>155<br>—                                      | 1<br>21<br>— | 1<br>10<br>—       | ·<br>  | $\frac{77}{102}$                                    | 6  | 2<br>5<br>—        |        |
| Total Syphilis                      | 192   | 22           | 11                 | 225    | 179   | 8  | 7                  | 194    |
|                                     |   |              |                    |        |   |  |                    |        |
| Gonorrhœa { Acute Chronic           | $\begin{array}{c} 124 \\ 1,787 \end{array}$         | 3<br>131     | $\frac{-}{126}$    |        | 1,929   | $\begin{array}{ c c } & 4 \\ 147 & \\ \end{array}$ | 3<br>107           |        |
| Total Gonorrhœa                     | 1,911   | 134          | 126                | 2,171  | 2,236   | 151  | 110                | 2,497  |
| Chancroid                           | 144   | 22           | 7                  | 163    | 80  | 9  | 8                  | 97     |
| Total Diseases                      | 2,247   | 178          | 144                | 2,559  | 2,492   | 168  | 125                | 2,788  |

Besides these there were 31 cases admitted under observation and who eventually proved to be free of disease. The average number of days in hospital for these was 3.8. See Table XXXV.

In last year's annual report it is stated that confinement in any hospital, to a person who does not feel ill, is extremely irksome, and that, where less freedom can be given than in an ordinary hospital, the confinement becomes more irksome still.

The extreme dislike of the women to admission to hospital was the cause of some

trouble during the spring of 1920.

Owing to the fact that the number of admissions had been unusually high the women refused, on March 1, to attend for weekly examination. Complaints of being sent into hospital unnecessarily, of being kept in too long, and of being improperly treated, were made to certain of the Consuls. An enquiry showed the complaints to be without foundation, but it was not until after the lapse of about a month that the examinations were resumed.

Table XXXIV.—Results of Examinations of Registered European Women, 1916 to 1920.

| YEAR. | Women registered during the Year. | Women<br>struck off<br>during the<br>Year. | Women remaining at the End of the Year. | Number of Examinations held during the Year. | Number of Examinations per Woman. | Women found Diseased. | Examinations exposing Diseased Condition.  Per Cent |
|-------|-----------------------------------|--|---|--|-----------------------------------|-----------------------|---|
| 1916  | 659                               | 234  | 425                                     | 24,934                                       | 37.8                              | 896                   | 3.2   |
| 1917  | 519                               | 156  | 363                                     | 16,372                                       | 31.5                              | 329                   | 2.0   |
| 1918  | 440                               | 48   | 392                                     | 17,275                                       | 39:3                              | <b>45</b> 0           | 2.6   |
| 1919  | 437                               | 91   | 350                                     | 15,826                                       | 35.9                              | 351                   | 2.2   |
| 1920  | 393                               | 126  | 267                                     | 9,894  | 25.2                              | 305                   | 3.1   |

TABLE XXXV.—EUROPEAN HOSPITAL FOR WOMEN. NUMBER OF PATIENTS AND PERIOD OF DETENTION FOR THE DIFFERENT DISEASES.

|                       |  |  | 1920.   |   |   |  |   | 1919.   |   |   |
|-----------------------|--|--|---|---|---|--|---|---|---|---|
| DISEASE.              | Total Number of Patients admitted during the Year. | Number of Patients remaining in Hospital at the End of the Year. | Total Number of Patients admi ted and discharged during the Year. | Total Number of Days in Hospital of Pati-nts admitted and discharged during the Year. | Average Number of Days in Hospital of Patients admitted and discharged during the Year. | Total Number of Patients admitted during the Year. | Number of<br>Patients remain-<br>ing in Hospital<br>at the End of<br>the Year | Total Number of Patients admitted and discharged during the Year. | Total Number of Days in Hospital of Patients admitted and discharged during the Year. | Average Number of Days in Hospital of Patients admitted and discharged during the Year. |
| Primary               | ro   | H  | 4   | 190   | 47.5  | 4  | -   |   | 125   | 31.2  |
| Syphilis Secondary    | 32   | H  | 31  | 297   | 15.1  | 2  | 70  | 63  | 98  | 18.0  |
| ( Tertiary            | 7  | 4  | -   | 37  | 34.0  |  |   | ı   |   | 1   |
| Total Syphilis        | 38   | 62   | 36  | 169   | 19.2  | 111  | 70  | 9   | 161   | 56.8  |
| ( Acute               | 15   |  | 15  | 304   | 20.3  |  |   |   |   |   |
| Gonorrhæa \ Sub-acute | 9  | 1  | 9   | 159   | 26.5  | 25   | 1   | 255   | 587   | 23.5  |
| ( Chronic             | . 274  | ©.   | 265   | 4,138   | 15.6  | 306  | Ŧ6  | 282   | 5,044   | 6-21  |
| Total Gonorrhæa       | 295  | 6  | 286   | 4,601   | 16.1  | 332  | 25  | 307   | 5,631   | 18.3  |
| Chancroid             | 2  |  |   | 148   | 21.1  | ∞  |   | ∞   | 142   | 17.7  |
| Under Observation     | . 31   |  | 31  | 119   | 3.8   | 38   | ı   | 38  | 211   | 10<br>10  |
| Totals                | 371  | 11.  | 360   | 5,559   | 16.0  | 389  | 30  | 359   | 6,145   | 17.1  |

# 1.—UNHEALTHY, INCONVENIENT, AND DANGEROUS ESTABLISHMENTS.

Under the Law of August 28, 1904, and the Arrêté of the Ministry of the Interior of August 29 of the same year, 1,540 establishments, coming under this Office, were licensed during 1920 after the fact of compliance with the conditions of exploitation had been verified by inspection, as compared with 1,512 in 1919.

Of the 1,540 establishments dealt with, 70 were establishments coming under Class I of the schedule attached to the law, as against 27 in 1919; 1,113 were establishments in Class II as compared with 903 in 1919, 357 in Class III as compared with 582 in 1919.

Subjoined is a detailed list of the various establishments in each class licensed during 1920:—

| Cı  | LASS    | I.     |         |             |             |       |               |
|---|---------|--------|---------|-------------|-------------|-------|---------------|
| Tanneries                                     |         |        | • • •   |             |             | • • • | 4             |
| Aerated Water Factories                       |         |        |         | • • •       |             | • • • | 3             |
| Soap Factories                                |         |        |         | • • •       | • • •       |       | 7             |
| Dairy   |         | • • •  | • • •   | • • •       | • • •       | •••   | 1             |
| Tobacco and Cigarette Fa                      |         |        | • • •   | • • •       | • • •       | • • • | 3             |
| Flax Scutching and Cardi                      |         |        | • • •   | • • •       | • • •       | •••   | $\frac{1}{7}$ |
| Sweetmeat Factories                           |         |        |         | • • •       | • • •       | •••   | 1             |
| Distillery Preserved Meat Factory             |         |        |         | •••         | • • •       | • • • | 1             |
| Cotton Ginning Factory                        |         |        | •••     |             | •••         |       | î             |
| Sewage and Refuse Depot                       |         |        |         |             | •••         | • • • | $\bar{1}$     |
| Pastry and Alimentary Pa                      |         |        |         |             | • • •       |       | 14            |
| Ovens and Bakeries for tra                    | de p    | urpos  | ses f   | or th       | e use       | e of  |               |
| the public                                    |         |        |         |             |             | • • • | 25            |
| Ice-cream Factory                             | • • •   | • • •  | •••     | • • •       | • • •       |       | 1             |
|   |         |        | Тот     | AL          | • • •       |       | 70            |
|   |         |        |         |             |             | Ξ     |               |
| $\mathbf{C}$                                  | LASS    | II.    |         |             |             |       |               |
| Groceries                                     |         |        |         |             | • • •       | • • • | 696           |
| Retail Oil-shops (for sale                    |         |        |         |             |             |       | 4             |
| Wholesale Grocery Depot                       |         |        |         |             |             | • • • | 5             |
| Flour Depots                                  |         |        |         |             |             | • • • | 65            |
| Vinegar Factories                             | • • •   | • • •  |         | • • •       |             |       | 6             |
| Public Kitchens and Kitch                     | hens    | of ]   | Publ:   | ic Es       | stabl       | ish-  | 0.0           |
| ments   | • • •   | ~      | • • •   | •••         | <br>3.6 1   | • • • | 28            |
| Sugar Cane Crushing a                         | and     | Suga   | r a     | nd .        | Mola        | sses  | ຄ             |
| Factories not driven                          |         |        |         |             |             | S     | $\frac{2}{3}$ |
| Fessikh Depots                                |         |        |         |             |             | • • • | $\frac{3}{2}$ |
| Pickle (Turshy) Factories                     | • • •   | • • •  | • • •   | • • •       | • • •       | • • • | $\frac{2}{2}$ |
| Oil-Mills Corn Mills for trade porp           | 2020    | or fo  | or th   | <br>10 11 S | e of        | the   | -             |
| Public  |         |        |         |             |             |       | 2             |
| Dve Works                                     | •••     | • • •  | • • • • |             |             |       | 13            |
| Dye Works Gypsum Mill                         | •••     | •••    | •••     |             | • • •       |       | 1             |
| Rag and Bone Stores                           |         |        |         |             |             |       | $\frac{2}{1}$ |
| Glue Factory (from Anir                       | nal I   | Matte  | er)     |             | • • •       | • • • | 1             |
| Depots of Hides and Ski                       | ins     | • • •  |         | •••         | •••         | • • • | 3             |
| Public Laundry                                |         | • • •  | • • •   |             |             |       | 1             |
| Mill for beating, carding                     | g, p    | ressir | ng,     | or o        | ther        | wise  | -             |
| preparing wool, hair,                         |         |        |         |             |             |       | 1             |
| Rope factory                                  | • • • • | • • •  | •••     | • • •       | • • •       | •••   | 1             |
| Industrial establishment                      |         |        |         |             |             |       | 1             |
| force in closed space                         |         |        |         |             |             |       | 1             |
| Mills for grinding grain ar                   | id nu   | ISKS I | or u    | aae         | purp        | by    |               |
| or for the use of th                          | e pu    | ond    | wne     | n we        | orked       | orea  | 6             |
| mechanical power (n                           |         |        |         |             |             |       | U             |
| Public Stables, temporary stables where anima | oje a   | herm   | mnl     | oved        | u an<br>for | in-   |               |
| dustrial or commercial                        |         |        |         |             |             |       | 26            |
| Zeriba for animals                            | ar p    | arpor  |         | • • • •     |             |       | 1             |
| Zeriba for animals<br>Manufactories of bevera | ages    | othe   | er t    | han         | Aer         | ated  |               |
| Waters and Alcohol                            | ic or   | ferr   | nent    | ed d        | lrink       | S     | 6             |
| Retail fessîkh establishm                     |         |        |         |             |             |       | 6             |
| Frying and Roasting Es                        | tablis  | shme   | nts     | • • •       | • • •       |       | 229           |
| , ,   |         |        |         |             | • • •       |       | 1,113         |
|   |         |        | 10      | IAL         | • • •       | • • • | ====          |

#### CLASS III.

| Clothes Ironing Establishments                  | 100 |
|---|-----|
| Depots of Cement and Gypsum                     | 15  |
| Butchers' Shops                                 | 68  |
| Fresh Fish Shops                                | 3   |
| Shops and Stores for the sale of domestic birds |     |
| and game of all description                     |     |
| Shops for the sale of Vegetables and Fruits     | 164 |
| Total   | 357 |
|   |     |

In last year's Report, attention was drawn to the small staff provided for inspection of establishments already licensed, and the principle was enunciated that the strength of staff to be aimed at is one overseer for each of the fifteen districts of Cairo and two others for milk samples and inspection of foodstuffs.

A commencement has been made in this direction by the appointment as overseers of four men of a higher standard of education than those already employed. These four men, after some months of careful training under the Inspector of overseers, commenced their work in July 1920. It is to be expected that with these overseers, and especially when their numbers are increased, the standard of sanitation in establishments mentioned on the schedule will be considerably raised. Evidence of improvement is already forthcoming as may be seen by Table XXXVI, which shows the relative occurrence of faulty conditions discovered at inspections of the various food establishments in 1919 and 1920. The percentage of the total is 6.6 per cent in 1920 as against 5.5 per cent in 1919. This increase is due to the more stringent application of the conditions of exploitation.

The number of establishments inspected in 1920 was 14,667, as compared with 10,553 in 1919. As the men became more familiar with the work, a great deal more will be expected of them as regards numbers of establishments inspected.

The conditions were found to be satisfactory in 13,686 or 93.4 per cent of establishments

inspected, as compared with 94.3 per cent in 1919.

Table XXVI.—Relative Occurrence of Faulty Conditions in Foodstuff Establishments inspected in 1919 and 1920.

|                          | Percentage of Visi<br>Conditions  | ts in which Faulty<br>were found.  |
|--------------------------|---|--|
| NATURE OF ESTABLISHMENT. | 1920  | 1919   |
| Grocers' shops           | Per Cent.  4 · 03 1 · 08 26 · 80 7 · 40 22 · 00 8 · 80 13 · 40 14 · 60 — 9 · 20 11 · 50 | Per Cent.  1 · 2 0 · 2 13 · 0 5 · 4 22 · 4 2 · 5 1 · 8 31 · 8 1 · 1 2 · 5 13 · 8 |
| Other establishments     | 6.60  | 5.2  |

The inspections of the various districts were distributed as described in the following table:—

Mûsky 855, Bâb el Sha'rîya 1,781, Ezbekîya 2,250, 'Abdîn 1,516, Saiyeda Zeinab 1,123, Khalîfa 535, Darb el Ahmar 2,204, Gamâlîya 630, Shubra 2,119, Bûlâq I 612, Bûlâq II 542, Old Cairo 290, 'Abbâsîya 211.

In Table XXXVII are shown the number and results of inspections in the various districts of the city. Unsatisfactory conditions were found most commonly in Old Cairo and Ezbekîya. Mûsky, Bûlâq I, Saiyeda Zeinab, and Darb el Shaʿrîya showed the most

satisfactory conditions.

In Table XXXVIII are shown the monthly distribution of the work and the results of the inspections in the various establishments. Bakeries, confectionery shops, poulterers' shops, dairies, and milk shops gave the most frequent cause for complaint. Bakeries

have always given trouble on account of faulty arrangements for smoke removal and insufficient frequency of whitewashing. The latter defect was also very common in the other establishments mentioned. Butchers' shops, grocers' shops, and greengrocers' shops were found to be the most satisfactory.

Table XXXVII.—Result of Inspections during 1920.

| Dist                         | TRICT. |         |       |       | Total Number of Inspections. | Number showing<br>Satisfactory<br>Conditions. | Percentage of Satisfactory Conditions.  Per Cent. | Number showing Unsatisfactory Conditions. | Percentage<br>Unsatisfactory<br>Conditions. |
|------------------------------|--------|---------|-------|-------|------------------------------|---|---|---|---|
| Mûsky                        | • • •  | • • •   | • • • | • • • | 855                          | 831   | 97:2  | 24  | $2 \cdot 8$ $4 \cdot 5$                     |
| Bâb el Sha <sup>c</sup> rîya | • • •  | • • •   | • • • | • • • | 1,781                        | 1,701   | 95.5  | 80  | 7.4   |
| Ezbekîya                     | • • •  | • • •   | • • • | • • • | 2,250                        | 2,083   | 92.5  | 167<br>180                                | 11.8  |
| 'Abdîn                       | • • •  | • • •   | • • • | • • • | 1,516                        | 1,336   | $\begin{array}{c} 88.8 \\ 96.2 \end{array}$       | $\frac{100}{42}$                          | $\frac{11}{3}.7$                            |
| Saiyeda Zeinab               | • • •  | • • •   | • • • | • • • | 1,123                        | 1,081   | 91.8  | 38  | 7.8   |
| Khalîfa                      | • • •  | • • •   | • • • | • • • | 534                          | 496<br>2,05 <b>3</b>                          | 93.1  | 151                                       | 6.8   |
| Darb el Almar                | • • •  | • • •   | • • • | • • • | $2,204 \\ 630$               | 582   | 92.3  | 48  | $7 \cdot 6$                                 |
| Gamâlîya                     | • • •  | • • •   | • • • | • • • | 2,119                        | 1,986   | 93.7  | 133                                       | $6\cdot \overset{\circ}{2}$                 |
| Shûbra                       | • • •  | • • •   | • • • | • • • | 612                          | 594   | 97.0  | 18  | $2 \cdot \overline{9}$                      |
| Bûlâq I<br>Bûlâq II          | • • •  | • • •   | • • • | • • • | 542                          | 501   | $92 \cdot 4$                                      | 41  | $\bar{7} \cdot 5$                           |
| Old Cairo                    | • • •  | • • •   | • • • | • • • | 290                          | 245   | 84.4  | 45  | 15.2  |
| CA bhacirra                  | • • •  | • • •   | • • • | • • • | $\frac{230}{211}$            | 197   | 93.3  | 14  | 6.6   |
| Abbasiya                     | Tor    | <br>FAL | •••   | •••   | 14,667                       | 13,686  | 93.3  | 981                                       | 6.6   |

Table XXXIX shows that the number of milk samples taken was 1,186. Of these,

339 were found adulterated and 847 genuine.

The number of samples of aerated waters taken was 243. Of these, 19 samples only were found to contain lactose fermentation organisms in 10 c.c. The factories from which samples gave unsatisfactory results were reinspected, the condition of the licences verified, and a time limit was given to carry out the lacking measures. Failure to comply was followed by legal proceedings. At the same time the floors of such factories, the water tanks where bottles are soaked, and the storage water tanks were washed with boiling water under the supervision of an overseer. In nearly all cases these measures gave the most satisfactory results.

•

Table XXXXVIII.—Objectionable, Unhealthy, and Dangerous Establishments previously existing inspected in 1920.

| CENT.      | Sonditions<br>Faulty.       | 4.0            | T. =            | 56.8     | Ŧ· <i>L</i>                     | 0.00                                    | $\frac{x}{x}$   | 13.4             | 9.11                   | 0.0                      | 3.5             | 11.5                 | 9.9    |
|------------|-----------------------------|----------------|-----------------|----------|---------------------------------|---|-----------------|------------------|------------------------|--------------------------|-----------------|----------------------|--------|
| Per C      | Conditions<br>Satisfactory. | 96.0           | 6.86            | 73.5     | 93.6                            | 0.82                                    | 91.2            | 9.98             | 85.4                   | 100.0                    | 8.06            | 88.5                 | 93.4   |
| L.         | Conditions<br>Faulty.       | 194            | 330             | 162      | 118                             | 22.2                                    | 31              | 19               | %<br>99                |                          | 56              | 324                  | 981    |
| ToraL,     | Conditions<br>Satisfactory. | 4,613          | 3,558           | 443      | 1,457                           | 113                                     | 319             | 123              | 210                    | 115                      | 955             | 2,481                | 13.686 |
| IBER.      | Conditions<br>Faulty.       | 12             | <del>-</del> #  | 1-       | 70                              | 70                                      | ಣ               |                  |                        |                          | ा               | 22                   | =      |
| DECEMBER.  | Conditions<br>Satisfactory. | 611            | 203             | 02       | 64                              | σι                                      | 47              | 6.               | 20                     | <b>ं</b> 1               | 29              | 349                  | 1,436  |
| BER.       | Conditions<br>Faulty.       | 28             | <del>-1</del> 1 | 15       | 10                              | 4                                       | <del>-1</del> 1 | 9                | ೧೦                     |                          | ा               | 65                   | 141    |
| NOVEMBER.  | Conditions<br>Satisfactory. | 625            | 452             | 57       | 178                             | 1                                       | 42              | 90               | 961                    | 17                       | 33              | 337                  | 1.835  |
|            | Conditions<br>Faulty.       | 42             | ಣ               | 35       | 1-                              | C1                                      | 10              | -                | 771                    | 1                        | -               | 57                   | 162    |
| OCTOBER.   | Conditions Satisfactory.    | 701            | 367             | 1-       | 204                             | 16                                      | 40              | 13               | 33                     | 17                       | 16              | 314                  | 1.899  |
| BER.       | Conditions<br>Faulty.       | Lõ             | 01              | 19       | 24                              | 9                                       | <del></del>     |                  | 1                      |                          | ΦI              | 30                   | 100    |
| SEPTEMBER. | Conditions<br>Satisfactory. | 998            | 287             | 13       | 175                             | 12                                      | 34              | 2                | 16                     |                          | 13              | 546                  | 1,185  |
|            | Conditions<br>Faulty.       | 20             | 70              | 20       | 56                              | C.                                      | 9               | ್ಯಾ              | 4                      |                          | <del>-1</del> 1 | 34                   | 131    |
| AUGUST.    | Conditions<br>Satisfactory. | 487            | 407             | 35       | 180                             | 138                                     | 27              | 21               | 75                     |                          | 25              | 268                  | 1,502  |
|            | Conditions<br>Faulty.       | 122            | Ø1              | $\infty$ | 41                              | 23                                      | <del>,</del> 4  | જા               | 1                      | #                        | ++1             | 32                   | 67     |
| JULY.      | Conditions<br>Satisfactory. | 392            | 693             | 32       | 114                             | ======================================= | 44              | 133              | 12                     | 1                        | <u>6</u>        | 328                  | 1.670  |
| <br>       | Conditions<br>Faulty.       |                | ಣ               | 13       | [-                              | 1                                       |                 | <del>- j</del> ı | Ħ                      | -                        | ಣ               | 13                   | 69     |
| JUNE.      | Conditions<br>Satisfactory. | 466            | 290             | 35       | 192                             | 19                                      | عزا             | 24               | દેશ                    | =                        | 32              | 129                  | 1,214  |
|            | Conditions<br>Faulty.       | 1 27           | 16              | 6.       | 97                              | <del></del>                             | 1               | ಣ                | ೯೦                     |                          | $\infty$        | 57                   | 137    |
| MAY.       | Conditions<br>Satisfactory. | 367            | 193             | 18       | 136                             | က                                       | o,              | 1-               | 4                      | 12                       | 43              | 159                  | 946    |
| i          | Conditions Faulty.          | 1              |                 | 12       | O DEL TOTAL                     |   | 1               |                  | ಣ                      | -                        | -               | 9                    | 22     |
| APRIL.     | Conditions<br>Satisfactory. | 112            | 102             | 31       | 28                              | 9                                       | 23              | က                | 12                     | ¢.                       | ĵĠ.             | 86                   | 417    |
| Н.         | Conditions<br>Faulty.       |                |                 | 10       | 1                               |   | cs.             | 1                | <b>ତ</b> ।             | 44.                      | 1               | $\infty$             | 25     |
| MARCH.     | Conditions Satisfactory.    | 143            | 164             | 21       | 59                              | က                                       | ∞               | <del></del>      | 9                      | 67                       | က               | 83                   | 493    |
| ARY.       | Conditions<br>Faulty.       | 5              | 1               | 9        | L-                              | <u>01</u>                               | -               |                  | 67                     |                          | 1               | 15                   | 37     |
| FEBRUARY,  | Conditions<br>Satisfactory. | 231            | 221             | 19       | 42                              | [**                                     | 42              | ক।               | 2                      | 9                        | 9               | 124                  | 718    |
| UARY. F    | Conditions<br>Faulty        | 01             | 1               | $\infty$ | જા                              |   | [               |                  | c.                     |                          | -               | 20                   | 65.    |
| JANUAI     | Conditions<br>Satisfactory. |                | 179             | 24       | őő                              | <b>ं</b>                                | 1               | 30               | ဖ                      |                          | <u> </u>        | 55                   | 448    |
|            | NATURE OF ESTABLISHMENT.    | Grocers' shops | Butchers' shops | Bakeries | Restaurants with public kitchen | Confectionery establishments            | Oilmen's shops  | Poulterers'shops | Dairies and milk shops | Vegetable dealers' shops | Fish shops      | Other establishments | Total  |

TABLE XXXIX.—MILK SAMPLES TAKEN DURING 1920.

|                                       |                                    | .             |   |           |                |  |                |                |  | <u>:</u>       |                                       | .                                      | <u>.</u> .     | ===            |
|---------------------------------------|------------------------------------|---------------|---|-----------|----------------|--|----------------|----------------|--|----------------|---------------------------------------|--|----------------|----------------|
| Dis                                   | TRICTS.                            | January.      | February.                               | March.    | April.         | May.                                   | June.          | July.          | August.                                | September.     | October.                              | November.                              | December.      | TOTAL.         |
| Bûlâq I                               | Genuine Adulterated                | 26            | 3                                       | 10        | 12             | $\begin{bmatrix} 7 \\ 2 \end{bmatrix}$ | _              | 11 3           | _8                                     | 6 2            | 5<br>3                                | 3 4                                    | 8              | 75<br>34       |
| Gamâlîya                              | Genuine Adulterated                | 7<br>3        | $\frac{4}{2}$                           | 6 3       | 2 2            | $\frac{3}{1}$                          | _              | 3              | $-\frac{3}{2}$                         | 6 2            | $\frac{4}{1}$                         | $-\frac{3}{2}$                         | 3              | 44<br>16       |
| ʿAbbâsîya                             | ··· { Genuine<br>··· { Adulterated | _5            | _                                       | 8         | 8 3            | 4<br>1                                 | 4              | 3 3            | 5                                      | _2             | $egin{array}{c} 5; \ 1 \ \end{array}$ | _                                      | $\frac{1}{6}$  | 45<br>20       |
| Bûlâq II                              | { Genuine<br>} Adulterated         | _             | _                                       | _2        |                |  | _              | _              | $-\frac{2}{2}$                         | _3             | _                                     | _8                                     | _6             | <u>21</u>      |
| Khalîfa                               | -<br>Genuine<br>••• Adulterated    | 5<br>5        | 1                                       | 9         | $-\frac{2}{ }$ | _3                                     | $-\frac{3}{2}$ | -2             | _6                                     | 5<br>1         | _2                                    | _                                      | 4              | 41<br>8        |
| Ezbekîya                              | { Genuine<br>{ Adulterated         | $\frac{1}{2}$ | 6 9                                     | 10        | 11<br>4        | $\frac{6}{2}$                          | $\frac{1}{4}$  | 2 5            | $\begin{vmatrix} 4 \\ 1 \end{vmatrix}$ | 7 6            | 8<br>8                                | _                                      | 6 3            | 62<br>47       |
| <sup>c</sup> Abdîn                    | { Genuine<br>Adulterated           | 5<br>3        | $\begin{bmatrix} 3 \\ 4 \end{bmatrix}$  | 4         | 10             | 1<br>4                                 | 1              | 1<br>4         | $\begin{vmatrix} 1 \\ 2 \end{vmatrix}$ | $\frac{6}{2}$  | _6                                    | $\begin{bmatrix} 2\\4 \end{bmatrix}$   | 5              | 44<br>29       |
| Shubra                                | { Genuine Adulterated              | 5.<br>6       | 11<br>7                                 | 5 2       | 2              | 8                                      | <u>-</u>       | -9             | 4 3                                    | 7 3            | _                                     | 6                                      | $-\frac{4}{}$  | 61<br>34       |
| Darb el Ahmar                         | { Genuine<br>{ Adulterated         | 5 3           | _3                                      | 9 2       | 6              | 2 2                                    |                | 10             | _3                                     | $-\frac{3}{2}$ | _6                                    | $\begin{bmatrix} 2 \\ 2 \end{bmatrix}$ | 11<br>2        | 60<br>12       |
| Mûsky                                 | { Geuuine Adulterated              | 4<br>3        | 8 3                                     | 10<br>5   | 10<br>1        | 6<br>1                                 | 7 2            | 7 2            | 5<br>1                                 | 8              | $\frac{6}{2}$                         | $\begin{vmatrix} 4 \\ 3 \end{vmatrix}$ | $\frac{12}{2}$ | 87<br>28       |
| B <b>â</b> b el Sha <sup>c</sup> rîya | Genuine<br>  Adulterated           | $\frac{1}{3}$ | _7                                      | 6 2       | -              | 5<br>1                                 | _              | 3  5           | 1 1                                    | _5             | 2 2                                   | $\begin{bmatrix} 3 \\ 4 \end{bmatrix}$ | 6              | 39<br>27       |
| Saiyeda Zeinab                        | { Genuine<br>} Adulterated         | 8 2           | _5                                      | 23<br>9   | 10             | _                                      | 7 3            | 3 1            | $\begin{bmatrix} 2 \\ 1 \end{bmatrix}$ | 13<br>4        | _                                     | 13<br>9                                | 8 2            | 92<br>31       |
| Old Cairo                             | { Genuine Adulterated              | 3             | 5<br>1                                  | _2<br>_   | 8              | _3                                     | _              | 10 2           | _1                                     | 13<br>2        | 4                                     | $\frac{1}{2}$                          | $-\frac{2}{}$  | $\frac{52}{9}$ |
| Zeitûn                                | { Genuine<br>{ Adulterated         | 7             | $\begin{bmatrix} 15 \\ 2 \end{bmatrix}$ | 5<br>2    | 10<br>5        | 6<br>1                                 | 2              | $-\frac{5}{2}$ | $\frac{12}{7}$                         | 2<br>5         | 12<br>7                               | 3 5                                    | 10             | 89<br>39       |
| Helwân                                | { Genuine<br>Adulterated           | 8 2           | _                                       | _10       | _              | _                                      | _              | _              | 1                                      | _              | $\frac{9}{1}$                         | 8 2                                    | _              | 36<br>5        |
| Total                                 | { Genuine Adulterated              | 66<br>36      | 70<br>32                                | 119<br>36 | 91<br>25       | 54<br>21                               | 24<br>21       | 69<br>26       | 57<br>20                               |                | 69<br>26                              | 56<br>41                               | 86<br>34       | 847 339        |
| Gı                                    | RAND TOTAL                         | 102           | 102                                     | 155       | 116            | 75                                     | 36             | 95             | 77                                     | 116            | 95                                    | 97                                     | 120            | 1186           |

### XII.—PROSECUTIONS.

The following table XL shows the number and character of the prosecutions that were instituted on public heath grounds during the year and the results that were obtained. A comparison with the prosecutions of 1919 is also given.

TABLE XL.—PROSECUTIONS.

|  |                             | ę.                    | 1920.       |        |                         |                              |                       | 1919.       |        |                         |
|--|-----------------------------|-----------------------|-------------|--------|-------------------------|------------------------------|-----------------------|-------------|--------|-------------------------|
|  |                             |                       | REST        | LT.    |                         |                              |                       | Rest        | TIT.   |                         |
| NAME OF LAW, ETC.  | TOTAL<br>NUMBER<br>REPORTED | Convictions obtained. | Aequittals. | Filed. | Under<br>Consideration. | TOTAL<br>NUMBER<br>REPORTED. | Convictions obtained. | Aequittals. | Filed. | Under<br>Consideration. |
| "Vidange" and "Dépotoirs." Arrêté of<br>November 8, 1886, modified by Arrêté of<br>June 2, 1910  | 395                         | 352                   | 4           |        | 39                      | 312                          | 218                   | 13          | 55     | 26                      |
| Practice of Medicine and its Branches.<br>Arrêté of June 13, 1891  | 4                           | 4                     | -           | _      |                         | 21                           | 18                    | 3           | _      |                         |
| Vaccination. Decree of December 17, 1890, modified by Decree of August 6, 1897, and by Law No. 9, 1917   | 325                         | 261                   | 2           | 25     | 37                      | 286                          | 211                   | 8           | 28     | 39                      |
| Enclosure of Waste Lands. Arrêté of June 15, 1893  | 35                          | 23                    | _           | 3      | 9                       | 5                            | 2                     | _           | 1      | 2                       |
| CEMETERIES:—   |                             |                       |             |        |                         |                              |                       |             |        |                         |
| Inhumation, Exhumation, and Transport of Bodies Abroad. Regulations of September 15, 1876, and March 26 and October 30, 1877                                       |                             | _                     | _           | _      | 1                       | 3                            | 2                     | 1           |        |                         |
| Prophylactic Measures against Infectious<br>Diseases. Law No. 15 of June 12, 1912  | 74                          | 69                    | 1           | 1      | 3                       | 260                          | 244                   | 4           | 5      | 7                       |
| Excavations and Birkas near Habitations. Decree of April 26, 1900  |                             | 1                     | _           | _      | _                       | _                            |                       | _           | _      | _                       |
| Pharmacy and Sale of Poisons. Law No 14 of September 15, 1904  | 19                          | 5                     | -           | 2      | 12                      | 4                            | 1                     | 1           | _      | 2                       |
| Assistant Pharmacists. Law No. 20, of November 17, 1911, modified by Law No. 15 of 1918  |                             | _                     | _           | 1      | 1                       | 1                            | _                     | _           | _      | 1                       |
| Births and Deaths. Decree of August 11, 1912   | 31                          | 27                    | -           |        | 4                       | 22                           | 18                    |             | _      | 4                       |
| "Etablissements Incommodes, Insalubres et<br>Dangereux." Law No. 13 of August 28,<br>1904, and Arrrêté of August 29, 1904,<br>completed by Arrêté of June 11, 1905 | 491                         | 312                   | 5           | 6      | 108                     | 314                          | 230                   | 4           | 6      | 74                      |
| Cleanliness of Streets. Arrêté of June 7, 1913   | 8                           | 8                     |             |        |                         | 2                            | -                     | _           | _      | 2                       |
| Adulteration of Milk. Art. 302 of the Native   | 320                         | 222                   | ِ<br>آ      |        | 93                      | 179                          | 151                   | 3           | 1      | 24                      |
| General Sanitary Contraventions. Native<br>Penal Code, Arts. 334, 335 and 336, and<br>Mixed Penal Code, Art. 333, para. 6  | 1 7 7 1                     | 125                   |             | 1      | 25                      | 60                           | 50                    | 2           | ءٙ     | 3                       |
| Passengers Control, Law No. 3 of 1918  | 51                          | 51                    |             | _      | _                       | 61                           | 53                    | _           | 2      | 6                       |
| Selling deteriorated meat  | _                           |                       |             |        |                         | 3                            | 3                     |             | _      |                         |
| Тотац  | 1,848                       | 1,460                 | 17          | 39     | 332                     | 1,533                        | 1,201                 | 39          | 103    | 190                     |

It will be seen that prosecutions for offences connected with the practice of medicine have fallen from 21 in 1919 to 4 in 1920. This is largely due to the fact that eleven of the prosecutions in 1919 were for illegal practice of dentistry. A new Dentistry Law was, however, promulgated in February 1920, which enabled a certain number of persons, hitherto unauthorized, to obtain permits to practise this profession.

The great decrease in the amount of infectious disease during 1920 is responsible for the diminution in the number of prosecutions for contravention of Law No. 15 of 1912.

Of the prosecutions for breaches of the law, "Pharmacy and sale of Poisons," three were for illegal sale of cocaine and morphine. In one case a conviction was obtained. The other two cases are still pending.

The increase in the number of prosecutions connected with the Law on Inconvenient, Unhealthy and Dangerous Establishments is due to the fact that four new overseers have been appointed (see Section XI) and the conditions of exploitation more strictly enforced.

### XIII.—MEDICO-LEGAL AND POLICE.

The Principal Medical Officer of Police reports that the following improvements have been introduced by him during the year:—

At every police station and outpost suitable arrangements from a medical point of view have now been made for the reception and examination of the injured; a first aid chest has been provided for each police unit, and the police officers have been instructed in the elements of first aid.

Every motor of the fire brigade has also been supplied with a specially constructed medical chest.

All new men joining one or other of the different branches of the police force: police, ghafirs, detectives, etc., are now vaccinated and an anti-lice campaign has been instituted with the object of preventing typhus and relapsing fevers in the ranks of the police force. Qism latrines and detention prisons are medically inspected and rules laid down for keeping the places in a sanitary condition.

Barracks and kits of policemen are also being medically inspected by him.

These are very valuable measures and should contribute greatly towards the maintenance of good health amongst the police and the comfort of the injured.

The medical work carried out by the Medical Officers of Police during 1920 was as follows:—

| NATURE OF WORK.   | 1919. | 1920.            |
|---|-------|------------------|
| Valice level exeminations of margans for slight injuries requiring loss than  |       |                  |
| Medico-legal examinations of persons for slight injuries requiring less than twenty days' treatment   | 5,613 | 7,578            |
| days' treatment   | 153   | 200              |
| the causes of death were suspected by the Qism Medical Officers Examinations of persons to whom no period of treatment was necessary (Police                  | 237   | 178              |
| Circular)   | 26    | 80               |
| deformities resulting from their injuries   | 292   | 355              |
| at their houses   | 131   | 119              |
| Ghafirs examined on entering service on request of the Commandant's Office  | 775   | 958              |
| Persons who were examined and sent to Qasr el 'Aini Hospital Policemen examined on request of the Personnel Office of the Ministry of the                     | 403   | 446              |
| Interior on account of sickness   | 800   | 844              |
| Cab-drivers, carters, and chauffeurs examined on request of the Traffic Office Persons sent to Fever Hospital as suffering from suspected cases of infectious | 1,929 | 2,088            |
| diseases  | 191   | 179              |
| the Governorate   | 748   | 705              |
| Thasirs examined on account of sickness   | 1,928 | 3,219            |
| constables and policemen treated at Office  | 869   | 883              |
| Constables and policemen treated at Office  | 317   | 449              |
| onstables and policemen admitted to Police Infirmary  | 759   | 1,075            |
| onstables and policemen admitted to Qasr el 'Aini Hospital  | 514   | 492              |
| cases of infectious diseases  | 210   | 188              |
| Momination of Parquets and Qisms for examination of criminals and injured   | 173   | 129              |
| persons   | 19    | $\frac{120}{32}$ |
| nspections done on First Aid Boxes at the various Qisms   |       | 2                |
| xamination of persons in connection with the Pension Law  | 26    | 16               |
| agabonds sent by the Qisms  | • 35  | 72               |
| edico-legal examinations of hanged persons  |       |                  |
| xamination and treatment of scourged persons  |       |                  |
| ew policemen examined for eyesight  | 129   | 166              |
| umber of Medico-legal reports written to replace lost reports   | 31    | 36               |
| xamination of sodomites for venereal diseases, etc  | 15    | $\frac{9}{10}$   |
| onstables and policemen examined to be brought before Court Martial   | 61    | 48               |
| fieces of minced food for dog poisoning   | 1,770 |                  |
| Persons examined for estimation of age on the request of judicial authorities   | _     | 5                |

### XIV.—ANTI-MOSQUITO MEASURES.

The work carried out against mosquitoes in 1920 remained the same as in 1919. The anti-mosquito measures were applied only in certain selected areas where a sufficient number of inhabitants had agreed to allow access to their premises for the purpose of dealing with possible breeding places.

The numbers of complaints about mosquito prevalence were very few. The Gezîra area has benefited very materially from the drainage work carried out there by the Main

Drainage Department in the years 1919 and 1920.

### HELWÂN.

The mosquito problem at Helwân divides itself naturally into two parts according to the variety of mosquito, the measures of suppression required being different in the two cases.

(a) The Culex mosquito is the variety almost exclusively found in the town. The work of suppression is carried out by the Local Council in the ordinary way by oiling the cesspits and collections of water, emptying barrels, etc., etc.

In consequence of the representations made to the Medical Office of Health, a Medical Officer, expert in mosquito prevention work from previous experience in the Sudan, was send by Cairo Inspectorate to Helwân to make a careful survey and to report to the Inspectorate.

Six weeks were spent in daily observations. A map was made showing the position of every cesspit and collection of water in the town. The chief breeding-places were found to be cesspits—wells—store water tanks, and garden fountains, wooden barrels in gardens, hooshes, or inside houses.

A variety of waste water disposal not uncommon at Helwân and very difficult to deal with is the magrûr, an underground channel with uneven floor lying from a few centimetres to one metre below the surface of the ground and from two to ten metres in length. Water collects in small pools in the uneven floor. These magrûrs are usually inaccessible as far as oiling is concerned.

Recommendations were made by the Inspectorate for correction of the defects observed in the arrangements in force and the modifications necessary to put the work on a proper footing were detailed.

(b) Anopheles mosquitoes are found around the outskirts of the town, mainly in the collections of water resulting from the various springs.

The springs of Helwan may be briefly described as follows:—

(1) Spring between kilometres 23 and 24 of the Cairo-Helwân railway line, running northwards in two stone-built channels on either side of the line.

This is a saline spring containing the following:—

|   |       |       |       |       |       | I     | Parts per million.   |
|---|-------|-------|-------|-------|-------|-------|----------------------|
| Total solids  | • • • | •••   | • • • | • • • | • • • | • • • | 8,088                |
| Chlorine  | •••   | • • • | •••   | • • • | • • • | • • • | 3,550                |
| Sulphates (SO <sub>3</sub> )  | • • • | • • • | • • • | • • • | • • • | • • • | 1,000                |
| Alkalinity (French Degrees)   | •••   | • • • | • • • | •••   | • • • | • • • | 88                   |
| Iron \ Manganese \ \cdot \cdots \ \cdots \cdots \ \cdots \cdots \ \c | • • • | •••   | •••   | • • • | •••   | N     | one in 50 cubic cms. |
| Sulphuretted hydrogen   | • • • | •••   | •••   |       | • • • | • • • | Absent.              |

Anopheles mosquito larvæ were found. The Railway Administration is taking steps to drain off the water.

- (2) Pools in holes on the golf course, used for watering the links. Anopheles larvæ found. The Main Drainage Department of Cairo, acting for the Anti-Malarial Commission, has deepened these, lined them with rubble so as to leave a 50-centimetre shaft, and provided the opening with a well-fitting cover.
  - (3) Dilapidated well about 500 metres west of Tewfik Palace Hotel.
- (4) "Bir el Hadid." A spring about 300 metres west of the Hotel last mentioned. This was supposed to be a chalybeate spring, but on analysis the water showed the following composition:—

|                              |                         |       |       |       |       |       |       |       | Parts per million.        |
|------------------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| Total solids                 | • • •                   |       | • • • | • • • |       | ٠     | • • • |       | <br>9,668                 |
| Chlorine                     | •••                     |       |       |       |       |       |       |       | <br>4,756                 |
| Sulphates (SO <sub>3</sub> ) | •••                     | • • • | •••   |       | • • • | • • • |       | • • • | <br>787                   |
| Alkalinity (Fren             | eh D                    | egre  | es)   | • • • | • • • | • • • |       | • • • | <br>16.4                  |
| Iron }                       | • • •                   | • • • | • • • | •••   | • • • | • • • |       | • • • | <br>None in 40 cubic cms. |
| Manganese )                  |                         |       |       | *     |       |       |       |       |                           |
| Sulphuretted hy              | $\mathrm{drog}\epsilon$ | en    |       |       |       |       |       |       | <br>Absent.               |

- (5) "Bir Hanem." A sulphur spring at the western end of Zaki Pasha Street. By changing, from time to time, the course of the water that finds its way out of the sides of the circular wall built round the spring and filled up with sand, the water, after running down the hill, can be prevented from forming pools at the bottom, it being then absorbed by the sand.
- (6) The bath spring and the two springs near it, the latter being free and used by the poorer classes for bathing. These are sulphur springs.

An analysis of the water of one of these springs in November 1918 gave the following results:—

|   |       | Parts per million. |
|---|-------|--------------------|
| Solid matter in solution                |       | 6,260              |
| Chlorine equivalent to sodium chloride  | • • • | 4,797              |
| Alkalinity 33°.0                        | • • • |                    |
| Permanent hardness (expressed as CaCO-) | • • • | 1,210              |
| Sulphuretted hydrogen                   | • • • | $53 \cdot 5$       |
|   |       |                    |

The overflow from these three springs is collected into a properly built drain and led away into open ground beyond the railway embankment more than a mile distant to the south-west of Helwân.

- (7) Certain sulphur springs north of the aerodrome, not always in evidence.
- (8) Two aerodrome springs. The military authorities drained these during the course of the year.
- (9) Spring at 'Ezbet el Qiblîya. A sulphur spring now covered up. The water, however, finds its way out at the north-north-east of the village.
- (10) Water collection in quarry holes about 200 metres east of El Hayat Hotel percolating from the cesspit. Culex larvæ only found.
- (11) Four pools in old quarries resulting from overflow of the town reservoir and free water fountain. No larvæ found. When last inspected these pools were drying up owing to representation made.

The measures required to be taken in dealing with these springs, the pools resulting from which afford breeding grounds for the Anopheles mosquito, are quite different fromthose found efficacious in keeping down the Culex mosquito in the town.

When the quantity of water is small, the precautions consist in changing, from time to time, the direction of the stream in order to secure the absorption of the water by the sand.

When the quantity of water is large, this has to be conducted to a sufficient distance to allow the formation of pools at a safe distance from the town. The oiling of pools in the open air is of little use unless the pools are very small as the wind blows the oil off large areas of the surface.

It has been said that cases of malaria have at times been known to occur in Helwân itself. The Inspectorate has no information that the accuracy of this statement has ever

been established by blood examination of the so-called cases.

Tradition runs that some years ago, signs of malaria were detected in certain of the inhabitants of the southern village ('Ezbet Helwân el Qiblîya) close to the site at which the aerodrome has been constructed. This is not at all improbable as the neighbourhood is one in which Anopheles mosquitoes could generally be found and the existence of these mosquitoes always constitutes a potential danger.

### XV.—RAT-CATCHING SERVICE.

In consequence of complaints received from various Government offices of the prevalence of rats, of destruction of official documents and of other inconveniences, a rat-catching service was started on January 1, consisting of a foreman and two men.

The number of complaints received during the year was 60 of which 18 were from Government offices and foreign agencies and 42 from private individuals. The total number of rats caught was 4,979.

|                     | •       | Rats Caught.                  | Rats Caugh  |
|---------------------|---------|-------------------------------|---|
| Government Archives | <br>••• | 602<br>869<br>144<br>23<br>10 | Cairo Governorate       691         Veterinary Department       90         Supplies Department       99         Public Works       141         Legislative Council       9         Qasr el 'Aini Hospital       36         French Agency       9         British Residency       86         Private individuals, churches, sporting clubs, etc.       1,460 |

#### XVI—MISCELLANEOUS.

(a) Sick Employees examined by Health Offices; Permits for Transport of Dead Bodies; Complaints re Health Matters; Public Baths, Mosques, Latrines, and Ablutionary Systems; Cemeteries; New Pharmacies and Drug-Stores; Lunatics certified; Birkas; Fencing of Waste Land; Vidange.

Table XLI gives all figures on these subjects. As regards complaints, a certain number are received regarding which no action is taken, on account of absence of any power to deal with the condition complained of.

The cemetery that was enlarged was that of the African Society, 'Abbâsîya. The new cemeteries established were those of the Syrian Catholic Community at 'Abbâsîya and Jewish Community at Helwân.

### (b) Refuse Disposal.

A note on this subject was made in the Departmental Annual Report of 1916. The salient points of that note—supplemented by comments—are the following:—

In the year 1916 the total quantity of refuse collected by the carts of the Scavenging and Watering Service was calculated to be 279 tons per day or 102,114 tons per annum, the calculation being based on the estimate that a cartload of refuse carried by a simple dust cart weighs one-third of a ton and by a double dust-cart two-thirds of a ton.

The three methods of disposal employed are: dumping on some convenient site,

sale to native baths for fuel, burning in the destructor.

The last-named is, of course by far the most satisfactory method of disposal, but when from the nature of the refuse the proportion of burnable material is small, as is the case in Cairo, this method of disposal presents difficulties and is expensive. The refuse destructor costs about L.E. 1,300 per annum to run and burns only 30 tons of refuse per day.

The cost in capital outlay and annual expenditure of disposing of all the refuse of Cairo in this way would be greater than could be justified in the present state of develop-

ment of the city.

The sale of refuse to the native baths for fuel is carried on, not on account of the revenue it brings to the Government—about L.E. 600 per annum—but because most of the baths would have to close if not allowed to use street sweepings for this purpose, the price of wood or coal being far beyond the means of their proprietors.

Dumping the refuse on some convenient site is a method of disposal peculiarly well suited to Cairo on account of its desert surroundings, though the great difficulty in this

connection is that of transport.

The refuse dumps at present in use are the following:—

Madbah dépotoir. Already in 1916 this had become a high mound of refuse.

'Abbâsîya dépotoir, an immense uneven area on the northern slope of the hill on which is situated the old reservoir of the Water Company. Many very large holes in this area are being filled in and the level of the whole raised to form a smooth slope leading down to the road. The filling-in is useful from the point of view of the Public Works Administration, for, when completed, the whole neighbourhood will be much improved and the Tanzim Department propose to plant trees on a part, at least, of the land. This dump has replaced the Husseinia dépotoir.

The Shanawani dépotoir to the east of Cairo, between the termination of Mûsky street and Bâb el Nasr, has lately been abandoned also, as the desired level has been reached.

At Gîza a very large deep crescent-shaped pond has for years been employeed as a dépotoir and is not yet filled.

Dumps also exist at Shubra, Embaba, and Matârîya.

The Scavenging and Watering Service was transferred from the Public Health Department to the Main Drainage Department in the spring of 1919. The following figures of daily output for 1920 have been supplied to me by the courtesy of the Chief Inspector of that Service.

|                                   |           | REMARKS.  | Γ                  |          |                 |           |             |          | rof s<br>g sto |         |          | HO     |            |                |         |               |             |             |       |
|-----------------------------------|-----------|---|--------------------|----------|-----------------|-----------|-------------|----------|----------------|---------|----------|--------|------------|----------------|---------|---------------|-------------|-------------|-------|
| GE.                               |           | Contravened.  | <u> </u>           | 10       | 30              | 25        | ပ           | 45       | 45             | 2       | I        | 74     | 92         | 16             | 34      | <b>©</b>      |             | 25          | 757   |
| VIDANGE.                          | səc       | Vidange Votio   | 1.C                | CO<br>CO | 146             | 823       | 124         | 216      | 929            | 377     | 126      | 209    | 948        | 191            | 866     | 31            | ಣ           | 1,437       | 6,768 |
| WASTE LAND.                       |           | Not fenced.   | q                  | <u>ئ</u> | ા               |           | <del></del> | <u>ा</u> | -              | 4       | Н        | ಣ      | 10         | 0.1            | 80      |               | େ ।         | જા          | 108   |
| WA                                |           | Fenced.   | -                  | <b>⊣</b> | ಣ               |           | ಣ           | l        | 2              | 13      | 4        | 1      | က          | 6              | 30      | 1             | 1           | 1           | 73    |
| BIRKAS.                           |           | .ni bəlli toN   |                    |          |                 |           |             | I        |                | 1       |          |        | ಣ          |                | 1       |               | 1           |             | ಣ     |
| BIR                               |           | ri bellid in.   |                    | 1        |                 |           | 1           | 1        |                | 1       |          | 1      |            | 1              |         | 1             | 1           |             | 1     |
| oitean                            |           | t tast sent t   |                    | <br>     | 43              | 13        |             | 10       | 9              |         | Ö.       | 61     | 13         | 6              | 14      | 41            | 9           | 4           | 142   |
|                                   |           | Drug Stores.  |                    | 1        | 63              | 1         |             | l        |                |         | 1        |        |            |                |         | -             | <del></del> | 1           | ಣ     |
|                                   |           | . Різтіпясіев.  | 7"                 | <b>-</b> | ବ୍ୟ             |           | 1           |          |                | -       | 1        |        | <b>ତ</b> ୀ |                | -       | <del></del> ! |             |             | ∞     |
| HES.                              |           | New.  |                    | 1        |                 | 1         | <del></del> |          | 1              |         | 1        |        |            | -              |         |               | -           |             | 67    |
| CEMETERIES.                       |           | Enlarged.   |                    | 1        | 1               |           | <b>-</b>    | -        |                |         |          |        |            | I              |         | 1             |             | 1           | H     |
| CE                                |           | Abolished.  |                    | 1        | l               | [         |             | [        | 1              | 1       |          |        | 1          |                |         | 1             |             | 1           |       |
| NED.                              | PRIVATE.  | Measures not recommended.                                 |                    | 1        | 1               |           |             | 13       |                | 1       |          | જા     | 1          |                | П       |               | İ           | 1           | 26    |
| EXAMINED.                         | PRIV      | Measures recommended.                                     |                    | 1        | 1               | 1         | 1           | ಣ        |                |         | 1        |        | 1          | 1              | 20      | 1             | ભ           | 1           | 10    |
| Mosques                           | QFS.      | Measures not recommended.                                 |                    | I        |                 | 1         |             | 34       | 1              | 1       | 1        | 19     | 1          | 1              | 6       | 1             |             | -           | 62    |
| Mosc                              | WAQFS     | Measures<br>recommended.                                  | ,                  | _        |                 |           |             | 27       | -              |         | -        | 1      | 1          | 1              | 27      | 1             | -           |             | 55    |
| PUBLIC<br>BATHS.                  |           | Measures not executed.                                    |                    | 1        | 1               | 1         | -           | 1        | 1              | -       | 1        | ा      | 1          | H              | Ţ       | 1             |             |             | 5     |
| PUE                               | .ba       | Measures excute   |                    | ા        |                 | -         |             | 15       |                |         |          | -      | 1          | -              | 2       | 1             |             | 1           | 27    |
| COMPLAINTS RE HEALTH MATTERS.     | et-<br>e, | lqmoə ton noitəA<br>əldissoqmi vo bə                      |                    | 1        | 1               | 1         | -           | ા        | -              | 1       | 1        | -      |            | 1              | 59      | -             |             |             | 31    |
| COMPI<br>RE H<br>MAT              |           | Dealt with.   |                    | 16       | 47              | 25        | 259         | 25       | 22             | 14      | 35       | 15     | 120        | 174            | 132     | 18            | 32          | 18          | 952   |
| 30                                | 101       | Removed from or<br>grave to another<br>the same Cemeteric |                    | 1        | 1               | 1         |             | 1        | 1              | -       | -        | -      | -          | -              | ಣ       |               |             |             | 33    |
| PORT                              | •4d       | mori bəvirrA<br>yza ni səitilsəol                         |                    | 1        | l               |           | 70          | 14       | 16             | 1-      |          | 1      |            |                |         | 1             |             | 19          | 19    |
| TRANSPORT<br>BODIES.              |           | From Cairo to oth<br>localities in Egyp                   |                    | 30       | 16              | 4         | 10          | 4        | 4              | 41      | 2/1      | 1      | 12         | 41             | 39      |               | 10          | 18          | 160   |
| FOR                               | .01       | From one Cemete<br>to another in Cai                      |                    |          | 1               | - 1       | 4           | 57       | 32             | ्रा     | 1        |        |            | 1              | 13      | <del></del>   |             | 10          | 120   |
| PERMITS                           |           | mort beyirrA<br>abroads.                                  |                    | 1        | I               | 1         | 1           |          | -              |         |          |        | 1          | 1              | 1       |               |             | <del></del> | 1     |
| Corpses transported abroad.       |           |   | 1                  |          | 1               |           | -           | 1        | -              |         |          | -      | 1          |                |         |               | 1           | 0.1         |       |
| Sick employees examined by H.O.s. |           |   |                    | 204      | 289             | 136       | 175         | 24       | 73             | 57      | 55       | 131    | 220        | 24             | 333     | 81            | 50          | 38          | 1,890 |
|                                   |           |   | :                  | :        | :               | :         | :           | :        | :              | :       | :        | :      | :          | :              | :       | :             | :           | :           |       |
| ·                                 |           |   |                    | :        | :               | :         | :           | :        | :              | :       | :        | :      | •          | :              | :       | :             | :           | :           | Total |
|                                   |           |   | :                  |          | iya             | •         | :           | :        | ar             | •       | :        |        | :          | ab             | :       | •             |             | Tora        |       |
|                                   | QISM H.   |   | :                  | ت<br>:   | Shars           | к         |             | :        | Ahm            | :       |          | •      | :          | Zein           | •       | :             | ro          |             |       |
|                                   |           |   | <sup>c</sup> Abdîn | Ezbekîya | Bâb el Shar'îya | 'Abbâsîya | Gamâlîya    | Khalîfa  | Darb el Ahmar  | Bûlâq I | Bûlâq II | Shûbra | Mûsky      | Saiyeda Zeinab | Zeitoun | Heluân        | Old Cairo   |             |       |

#### DAILY OUTPUT 1920.

|                       |       |       | Single Dust-Cart (1 m³, Capacity). | Double Dust-Van<br>(2 m³. Capacity). |
|-----------------------|-------|-------|------------------------------------|--------------------------------------|
| Madbah                |       |       | 51.                                | 45                                   |
| Gîza                  | • • • | • • • | $\tilde{5}$                        | 3                                    |
| <sup>c</sup> Abbâsîya |       |       |                                    | 25                                   |
| Embaba                | • • • | • • • | 16                                 |                                      |
| Matarîya              | • • • | •••   | <u> 36</u>                         |                                      |
|                       |       |       | 226                                | 75                                   |
|                       |       |       |                                    |                                      |

Total ... 376 cubic metres

In addition, 158 single dust cart loads were daily delivered to native baths, as fuel, against payment of 10 milliemes per load, and 30 tons per day were burnt at the destructor. A single cart load is reckoned at about one metre and at about one-third of a ton weight. Thus the total average daily output in 1920–1921 was:—

TABULAR STATEMENT OF RUBBISH OUTPUT FOR THE LAST FIVE YEARS.

|         | 1916.  | 1917.                       | 1918.                       | 1919.                       | 1920.                       |
|---------|--------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Tipping | 18,666 | Tons.  86,505 17,520 10,950 | Tons.  87,965 19,345 10,950 | Tons.  38,690 19,345 10,950 | Tons.  54,625 19,345 10,950 |

# (c) MULID EL NABI.

The Mulid el Nabi festival was held at 'Abbâsîya on November 22, 23, and 24, on a large scale for the first time since the outbreak of the war.

It has been calculated that on the last day of the Mulid the number of visitors was approximately 10,000.

The sanitary requirements were provided for and supervised by the Inspectorate.

Ten portable latrines and accessories were erected in 5 groups of two each to the south of the tents of Government Ministries.

Arrangements were made with the Cairo Sewage Transport Company for the emptying of pails, two carts being constantly employed for this purpose. The cleanliness of the latrines was secured by the employment of five of the Sewage Transport Company's men, one to each group of two latrines. In addition to sweeping, etc., lime and cyllin were employed.

In the absence of these or some similar arrangements, the surroundings would have

become unutterably foul.

The supervision was performed by the Inspector of Vidange and two of his subordinates.

### (b) Paving of the Narrow Streets in the Native Quarters.

A measure likely to prove of great value to public health is in course of being carried out in the smaller streets of the native quarters.

This consists in the paving of these streets with cubical stone sets,  $25 \times 25 \times 20$  cms. These stone sets are placed upon a clean sand foundation, the cracks between the stone soon become filled in and an impermeable surface is produced.

This impermeable surface, which can be swept and washed and thus kept clean, presents a vast improvement over the old mud surface, absorbent of dirty liquids often impregnated with animal matters subject to decomposition.

An improvement in the health of the inhabitants of the quarters so dealt with may be hoped for, especially with regard to diarrheal and other intestinal diseases. This is an exceedingly important matter in view of the high death-rate from infantile diarrhea.

36,086 square metres of this paving have so far been laid down in the following quarters:—

Darb el Ahmar.—In the area bounded on the north by Sharia Shanawani, on the south by Sharia Darb el Ahmar, on the east by the refuse heaps adjacent to the Tombs of the Khalifs, and on the west by the Sharia El Ghoury, 17,680 square metres.

Gamâlîya.—In that part of the District immediately to the north of the Darb el Ahmar quarter just described: 4,287 square metres.

Mûsky.—In the triangle formed by Sharia Mohammed 'Ali, Sharia El Khalig el Masri, and the Sharia El Mûsky: 7,692 square metres.

'Abdîn.—In the triangle formed by Sharia Mohammed 'Ali, Sharia Gheit el 'Edda and the Convent of the Sisters of St. Vincent de Paul: 5,075 square metres.

1,352 square metres have also been laid down elsewhere in the town.

It is to be hoped that this work will be continued without interruption, as the cost is comparatively small and the sanitary advantages resulting thereform are undoubtedly great.

### (e) THEATRE COMMISSION.

By the Arrêté of the Ministry of the Interior of July 12, 1911, instituting the Theatre Commission, and by the Arrêté of the Ministry of the Interior of February 6, 1912, the Medical Officer of Health of the town is appointed a member of the Theatre Commission.

During the year, one new establishment and 29 establishments already licensed were inspected by a delegate of the Cairo City Health Inspectorate.

Of this number, 7 were theatres and 27 cinemas and café concerts.

A few of these establishments were reinspected two or three times. In a third of the total number were the sanitary arrangements found satisfactory. Many of the others were in a dirty condition.

P. G. S. WILLIAMS,

Medical Officer of Health, Cairo City.

APPENDIX A.—CAIRO CITY WEEKLY WEATHER STATE FOR 1920.

| orks.)            |
|-------------------|
| =                 |
|                   |
| Public            |
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| Ministry          |
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| nuary 1-7 19.6 +0.6  15-21 19.6 +10.6  15-21 19.6 +10.0  15-21 16.4 -0.9  22-28 17.7 -0.3  29-4 February 17.7 -1.1  29-4 February 17.7 -1.1  20-8 22.7 +0.7  19-25 22.7 +0.7  19-25 23.4 +0.4  29-1 April 23.7 +10.8  16-22 23.4 +0.4  29-1 April 23.7 -1.8  16-22 27.2 -0.8  16-22 27.2 -0.8  16-22 23.8 +2.8  30-6 May 29.6 -0.4  14-20 29.2 -3.8  14-20 29.2 -3.8   | CLOUD. WIND. NILE GAUGE (°C.). WIND. WIND. NILE GAUGE | Difference from Normal.  Difference from Normal.  Difference from Normal.  Per Cent of Possible.  Difference from Normal.  Neekly Total.  Difference from Normal.  Per Cent of Possible.  O— 10.  Difference from Normal.  Nean.  Per Cent of Possible.  Difference from Normal.  Nean.  Difference from Normal. | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 11 + 11.9  13.2  +0.8  77  +5  0.0  -1.6  6.6  64  5.3  +0.9  1  S.E.  14.58  -0.51 | 0.00000000000000000000000000000000000 | 3 +2·3 11·7 -0·8 72 + 1 Drops 1·6 6·7 63 3·7 -0·5 2 S.W. 14·43 -0·48 | 9 + 0.5   11.0   -2.0   82 + 12   0.0   -1.4   7.1   66   3.8   -0.3   2   S.E.   14.79   -0.23                                   | - 0.6 0.5-   | -1.6 10.6    | 1 -0.1 11.8 -2.3 81 +16 16.0 +15.0 5.5 49 5.8 +2.0 3 S.W. 15.74 +0.38 | ·2 +1·7 14·7 -0·3 68 + 4 0·3 - 0·6 7·1 62 4·8 +1·1 3 S.E. 15·60 +0·20 | 5  + 2.0  15.7  -0.3  78  + 16  6.7  + 6.0  7.9  68  5.1  + 1.4   2  N.E.  15.70  + 0.28 | 3 + 1.8 + 16.6 + 0.2 + 8 + 0.0 + 8 + 0.0 + 0.7 + 8.9 + 75 + 2.2 + 1.4 + 2 + 0.15 + 15.59 + 0.15 | 11 + 1.1 = 15.9 = -1.9 = 76 = +15 = 0.0 = 0.6 = 8.4 = 69 = 5.0 = +1.4 = 2 = 0.5 = 0.21 = 0. | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 2 +1.7 21.1 +1.6 58 + 0 0.0 - 0.9 9.5 75 2.2 -1.3 1 N.W. 15.58 +0.28 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 8 +0.8   19.1   -2.2   63   + 8   Drops   -0.9   11.0   85   4.2   +0.8   1   N.W.   15.55   +0.28 | .5  $ +1.5 $ $ 23.2 $ $ +1.2 $ $ 50 $ $ -4 $ $ 0.0 $ $ -0.9 $ $ 11.3 $ $ 86 $ $ 0.5 $ $ -2.8 $ $ 2 $ $ N.E. $ $ 15.46 $ $ +0.20 $ |               |      | $2 + 0.2 \mid 21.3 \mid -2.7 \mid 50 \mid + 0 \mid 0.0 \mid -0.2 \mid 11.9 \mid 87 \mid 2.2 \mid -0.6 \mid 1 \mid N.W. \mid 15.52 \mid +0.47 \mid 15.52 \mid $ | 19.1   94.3   -0.6   46   -4   0.0   -0.9   19.1 |
|--|---|--|---|--|---------------------------------------|--|---|--------------|--------------|---|---|--|---|--|---|--|---|--|---|---------------|------|--|--|
| Transformer (**)  Webs.*  Webs | SUNSHINE (Hours).                                     | Per Cent   |   |  | $\infty$                              | 2.   |   |              | ţ-           |   |   |  |   |  |   | .č.  |   | 0.   | ٠ <u>.</u>  | 4             | 57   |  | 87   |
| TEAPERATTURE (°C).  WERK,  March  192 19.6 +0.6 7.0 0 11.9 -0.7 85 +13 0 11.9 -0.7 85 +13 0 11.9 -0.7 85 +13 0 11.9 0            | FALL<br>m.  |  |   |  |                                       |  | <del>-</del> | 6.5          | 0.           | 15.0  | 9.  | 0.9  | 2.  |  | $\infty$  | <u></u>  | 6.  | <u>-</u> 6.  | 6   | 4             | -22  | •  | .2 1   |
| TEAMPERIATURE (*C.).  WEEK,  March  19-25 19-6 10-7 11-3 18-2 +0-8 75 +41  20-4 February 17-7 -0-3 8-3 +2-3 11-7 -0-8 75 +41  20-4 February 17-7 -0-3 8-3 +2-3 11-7 -0-8 75 +41  20-4 February 17-7 -0-3 8-3 +2-3 11-7 -0-8 75 +41  20-5 17-7 -3-3 8-1 -1-1 18-2-9 80 +113  19-25 22-7 +0-7 11-3 +1-7 11-5 -0-8 75 +41  20-1 April 23-7 -1-8 9-2 -1-8 16-6 -0-2 0 70 4-0 85 +115  20-1 April 23-7 -1-8 9-2 -1-8 16-5 -0-3 68 +4  21-28 27-4 +1-1 13-2 +1-7 11-6 10-6 -2 9 80 +13  19-25 23-4 +0-4 11-1 13-9 11-7 -0-3 68 +4  21-18 23-7 -1-8 9-2 -1-8 16-5 -0-3 68 +4  21-20 27-2 -0-8 13-4 +1-4 19-1 11-2 0-6 58 +0  22-29 27-4 -1-1 13-8 +0-8 19-1 -2-2 63 +8  23-29 27-4 -1-1 13-8 +0-8 19-1 -1-2 61 +5  16-22 27-4 -1-1 13-8 +0-8 19-1 -2-2 63 +8  23-29 23-8 +2-8 15-5 +1-5 23-2 +1-2 50 -4  14-20 29-2 -3-8 16-2 -3-8 +0-3 38 -13  14-20 29-2 -3-8 16-2 -3-8 +0-3 38 -13  14-20 29-2 -3-8 16-2 -3-8 -0-6 46 -4  14-20 29-2 -3-8 16-2 -3-8 -0-6 46 -4  11-21  | RAINI   | Weekly Total.  | 0.0   | 0.0  | Drops.                                |  | 0.0   |              | Drops.       |   | 0.3   |  | 0.0   | Drops.   | 0.0   | 0.0  | 0.0   | Drops  | 0.0   |               |      | •  | 0.0  |
| TEMPERATURE (*C.).  Week.  Week.  15-21  15-21  15-21  15-21  15-22  22-28  15-21  17-7  19-6  19-6  19-55  | MIDITY<br>CENT.                                       |  | +13   |  | +                                     | +  | $\overline{}$   | +17          | +13          | +16   | +   |  |   |  | - 2   | 0 +  |   | <b>%</b>   | 4 -   |               | -13  | 0 +  | 4  |
| TEANPERATURE (°C.).  WEEK,  15-21  15-21  19-6  19-6  19-6  19-7  19-6  19-6  19-6  19-6  19-6  19-7  19-8  19-8  19-8  19-8  19-9   | HUN   | Mean,  | 85  | 2.2  | 75                                    | 73   | 82  | 85           | 80           | 81  | 89  | 78   | 02  | 92   | 57  | 58   | 61  | 63   | 50  | 58            | 38   | 50   | 46   |
| TENPERATURE (°C.).  NEEK.  Maximum.  NEEK.  Janiminum.  19.6 +0.6 7.0 0.0 11  29.28 19.6 +1.0 9.1 +1.9 13  29.4 February 17.7 -0.3 8.3 +9.3 11  29.4 February 17.7 -1.1 6.9 +0.5 11  19.25 16.6 -3.4 6.4 -1.6 10  19.25 17.7 -3.3 8.1 -0.1 11  20.4 March 22.7 +0.7 10.2 +1.7 14  5-11 22.7 +0.7 10.2 +1.7 14  5-11 23.7 +0.4 11.1 +1.1 15  29-1 April 23.7 -1.8 9.2 -1.8 16  29-2 8 34.0 +7.0 13.2 +1.7 21  9-15 27.2 -0.8 13.4 +1.4 19  16-22 23.4 +0.4 11.1 13.8 +0.8 19  23-29 34.0 +7.0 13.2 +1.7 21  30-6 May 29.6 -0.4 14.5 +0.5 21  14-20 33.5 +3.5 16.6 +2.6 23  14-20 33.5 +3.5 16.5 10.6 12  21-27 34.0 +0.5 17.4 +0.4 24   |   |  | 2.0-  | 8.0+   | 8.0-                                  | 8.0-   | -2.0  | <b>-4.</b> 0 | -2.9         | -2.3  | -0.3  | -0.3   |   |  | -2.4  | +1.6   | •   | •  | -   | •             | 2.0+ | 7.5-   | 9.0-   |
| Week.  We | i i   | Mean   |   | 13.2   | •                                     | •  |   | 0.6          |              |   |   | 15.7   | 9.91  | 15.9   | 16.3  | 21.1   | 19.1  | 19.1   | 23.2  |               |      |  | •  |
| Ty 1-7 19.6 +0.6  8-14 19.6 +1.0  15-21 19.6 +1.0  15-21 19.6 +1.0  22-28 17.7 -0.3  29-4 February 17.7 -0.3  29-4 February 17.7 -1.1  12-18 20.8 -0.7  5-11 20.8 -0.7  26-4 March 20.8 -0.7  29-1 April 24.2 +0.7  19-25 24.2 +0.7  19-25 24.2 +0.7  19-25 24.2 +0.7  29-1 April 23.4 +0.4  29-1 April 23.4 +0.4  29-1 April 23.4 +0.4  29-1 April 23.5 +2.8  14-20 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 33.5 +3.5  14-20 29-2 -3-8  |   |  | 0.0   | $\vdash$   |                                       | +2.3   |   | -2.0         |              | -0.1  |   | +2.0   |   |  |   | _  |   | 8.0+   | •   |               |      |  | 7.0+   |
| Ty 1-7 19.6 +0.6  8-14 19.6 +1.0  15-21 19.6 +1.0  15-21 19.6 +1.0  12-28 17.7 -0.3  29-4 February 17.7 -0.3  29-4 February 17.7 -1.1  12-18 20.8 -0.7  5-11 20.8 -0.7  26-4 March 20.8 -0.7  29-1 April 23.4 +0.4  29-1 April 23.7 -1.8  2-8 34.0 +7.0  9-15 27.2 -0.8  16-22 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  23-29 27.4 -1.1  | EMPERA  | .mmminiIX  | 0.2   | 9.1  | 9.2                                   | . 8  | 6.9   | 0.9          | 6.4          | 8.1   | 10.2  | 10.5   |   | 11.1   | 9.5   | 13.2   | 13.4  | 13.8   | 15.5  | 14.5          | 9.91 | •  | •  |
| Week.  1-7  8-14  15-21  29-4 February  19-25  19-25  26-4 March  5-11  29-1 April  29-1 April  29-1 April  29-1 April  21-22  30-6 May  7-13  14-20   | T.  | -  | 9.0+  | +1.0   |                                       | -0.3   | -1.1  | -4.7         | <b>7.</b> :- | -3.3  |   | 2.0+   | 40.4  | +0.4   | -1.8  | 0.2+   | 8.0-  | -1.1   | +3.8  | <b>7.</b> 0-4 | +3.5 | •  | •  |
| Week.  Number.  11-7  8-14  15-21  22-28  29-4  19-25  26-4  5-11  12-18  19-25  29-1  2-8  9-15  16-22  23-29  30-6  14-20  21-27   |   | Maximum.   | 9.61  | 19.6   | 16.4                                  | 17.7   | 17.7  | 15.3         | 9.91         | 17.7  | 20.8  | 22:7   | 24.5  | 23.4   | 23.1  | 34.0   | 27.2  | 27.4   | 32.8  | 29.6          | 33.5 | 29.5   | 34.0   |
|  |   | BK,  | 1-7   | 8-14   | 15-21                                 | 22-28  | ' '   | 5-11         | 12-18        | 52–61   |   | 5-11   |   | 19-25  |   | 8 -2   | 9-15  |  | 23-29   |               |      |  | 21-27  |
|  |   | WE   |   |  |                                       |  |   |              |              |   |   |  |   |  |   |  |   |  |   |               |      |  |  |

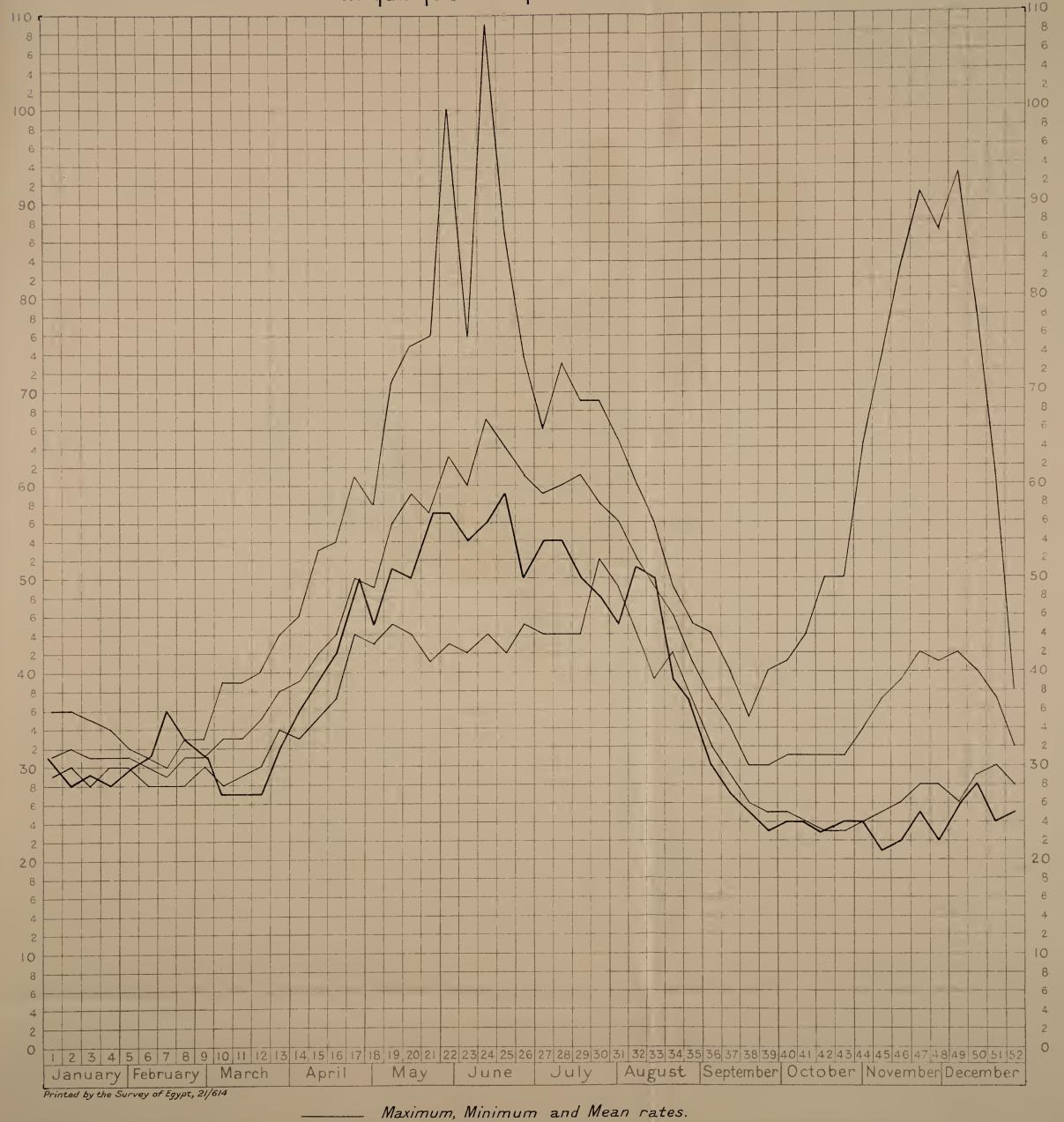
|       |           | ••    | •      |              |        | •        |              | •       |             |        |       |       |                |       |          |         |         |                  |       |                 |            |          |       |        |           |          |       |              |         | () |
|-------|-----------|-------|--------|--------------|--------|----------|--------------|---------|-------------|--------|-------|-------|----------------|-------|----------|---------|---------|------------------|-------|-----------------|------------|----------|-------|--------|-----------|----------|-------|--------------|---------|----|
| +0.31 | +0.30     | +0.36 | +0.43  | +0.37        | +0.30  | +0.29    | +0.53        | +0.35   | +0.53       | +0.52  | t9.0+ | +0.59 | +0.53          | -0.18 | -0.61    | 88.0-   | 08.0-   | <del>19.0-</del> | 19.0- | $\tilde{c}1.0-$ | -0.03      | +0.37    | +0.42 | 77.0+  | +0.05     | F0.0—    | -0.05 | -0.10        | 89.0-   |    |
| 15.54 | 15.58     | 15.67 | 15.78  | 15.79        | 15.79  | 15.84    | 16.00        | 16.26   | 16.70       | 17.76  | 18.42 | 18.68 | 18.63          | 18.33 | 18.03    | 17.82   | 17.83   | 17.92            | 17.93 | 18.40           | 18.22      | 18.11    | 17.72 | 17.14  | 16.67     | 16.30    | 16.09 | 15.67        | 14.68   |    |
| N.W.  | N.W.      | N.W.  | N.W.   | N.W.         | N.E.   | N.W.     | N.W.         | N.E.    | N.E.        | N.W.   | N.W.  | N.W.  | N.W.           | N.W.  | N.E.     | N.W.    | Z       | N.E.             | N.E.  | N.E.            | N.E.       | N.E.     | N.E.  | N.E.   | N.E.      | N.E.     |       | N.N.B.       | E.N.    |    |
| 87    | 7         | +     | -4     | -            | -      | -        | <del>-</del> | -       | <del></del> | જા     | οı    | 2     | ०१             |       | $\vdash$ | -       | 21      | _                | ભ     | જા              | સ          |          | ભા    | ભ      | <b>Φ1</b> | -        | 1     |              | -       |    |
| -0.3  | -1.5      | -1.0  | 6.0-   | 9.0-         | -0.1   | +0.8     | +0.5         | F.0+    | -0.1        | +0.3   | +1.5  | +0.3  | -1.0           | 9.0-  | -0.5     | 0.0     | 6.0+    | ç.0-             | 2.0+  | +1.1            | 7.0+       | 41.5     | 9.0+  | +1.2   | +1.7      | +3.3     |       | +0.1         | 9.0-    |    |
| 1.3   | 0.0       | 0.3   | 6.0    | 1.0          | 1:2    | 61<br>61 | 1.6          | 1.9     | 7           | 1.9    | 3.1   | 1.9   | 9.0            | 1.0   | 1.2      | 6.1     | 3.0     | 1.7              | 2.9   | 3.1             | 3.1        | ₩<br>₩   | 3.7   | 4.5    | 5.5       | 7.1      |       | 4.3          | 3.7     |    |
| 88    | 87        | 91    | 90     | 95           | 90     | 89       | 93           | 91      | 16          | 83     | 98    | 89    | 88             | 81    | 81       | 282     | 78      | 200              | 62    | 825             | 99         | 53       | 71    | 22     | 62        | 71       | 19    | 29           | 48      |    |
| 12.3  | 12.3      | 12.9  | 12.6   | 12.8         | 12.5   | 12.3     | 12.7         | 12.4    | 12.1        | 11.8   | 11.2  | 11.3  | 11.11          | 10.01 | 6.6      | 9.4     | 9.5     | 9.1              | 0.6   | 9.5             | 7.5        | 5.5      | 9.2   | 6-2    | .∞<br>3.  | 7.3      | 8.9   | 6.9          | ÷4<br>∞ |    |
| 0.0   | 0.0       | 0.0   | 0.0    | 0.0          | 0.0    | 0.0      | 0.0          | 0.0     | 0.0         | 0.0    | 0.0   | 0.0   | 0.0            | 0.0   | 0.0      | 0.0     | F.0 -   | F.0 -            | 0.5   | ₹.0 -           | 9.0 -      | 2.0 -    | - 0.7 | 2.0 -  | 8.0 -     | - 1:1    | -     | 1.5          | +19.5   |    |
| 0.0   | 0.0       | 0.0   | 0.0    | 0.0          | 0.0    | 0.0      | 0.0          | 0.0     | 0.0         | 0.0    | 0.0   | 0.0   | 0.0            | 0.0   | 0.0      | 0.0     | 0.0     | 0.0              | 0.0   | 0.0             | 0.0        | 0.0      | 0.0   | Drops. | 0.0       | Drops.   | 1     | 0.0          | 20.1    |    |
| +     | ಣ<br>     | 0     | ا<br>ش | <del>П</del> | ا<br>ئ | +        | ස<br>        | -       | ∞<br>       | -13    |       | 6     | 0              |       |          | e1<br>+ |         | +                | 9 +   | +               | +          |          | 9 +   | 6 +    |           | +13      | 1     | +            | 9 +     |    |
| 52    | 48        | 52    | 49     | 52           | 51     | 56       | <u> †¢</u>   | 58      | 52          | 50     |       | 56    | 29             | 7.3   | 75       | 25      | 22      | 72               | 78    | 92              | 7-4        | 08<br>08 | 62    | 82     | 84        | 98       | 1     | 92           | 78      |    |
| 1.1   | -1.5      | 9.0-  | 8.0-   | -2.0         | -1.4   | -1.5     | 9.0-         | 2.0-    | 10.3        | 2.0-   | -0.1  | +1.1  | -1.3           | -1.1  | -1.8     | -1.3    | -1.0    | -1.4             | 6.0-  | 0.0             | 8.0-       | - F: 1-3 | 1.2.6 | 6.1-   | -3.6      | 6.6-     | 1     | 2.0          | -1.8    |    |
| 9.16  | 25.4      | F-97  | 26.6   | 25.8         | 9.97   | 8.97     | 27.4         | 27.3    | 28.3        | 27.8   |       | 28.1  | 25.0           | 24.1  | 23.2     | 23.0    | 23.0    | 21.8             | 21.8  | 21.8            | 50.0       | 18.6     | 16.3  | 15.8   | 14.1      | 12.9     | I     | 13.2         | 11.3    |    |
| -0.5  | 6.0-      | 8.0-  |        | -1.3         | +0.3   | +0.4     | +0.3         | 7.0-    | 2.0+        | +1.1   | +1.6  | +3.6  | 6.0-           | 8.0+  | ₹.0-     | 2.0-    | +0.3    | 6.0-             | +0.1  | +1.2            | 6.0-       | G.0-     | -0.5  | F.()+  | -1.5      | -1.8     | 1     | ₹.0 <b>-</b> | +0.2    |    |
| 17.5  | 18.1      | 18.5  | 18.5   | 18.7         | 20.3   | 71.4     | 21.8         | 20.8    | 21.7        | 22.1   | 9.55  | 9.53  | 20.1           | 19.8  | 18.1     | 17.8    | 18.3    | 16.1             | 17.1  | 16.5            | 15.1       | 13.5     | 11.8  | 11.4   | 9.5       | 8.5      | -     | 8.1          | 8.57    |    |
| -0.3  | -1.0      | +2.1  | +2.4   | e.0-         | F.0+   | •        | ₹.0-         | +1.6    | +2.4        | 8.0+   | +1.0  | +1.9  | -1.5           | -1.1  | -1.4     | 8.0-    | -1:1    | -1.3             | -0.1  | 9.0+            | ; <u> </u> | +1.3     | +0.5  | 2.0+   | 0.0       | ē.0−     | 1     | +1.6         | 1       |    |
| 34.5  | 34.5      | 9.98  | 37.4   | 34.7         | 36.4   | 9.78     | 35.6         | 9.98    | 37.7        | 35.3   | 35.0  | 35.9  | 31.5           | 30.8  | 9.08     | 30.5    | 29.9    | 28.7             | 28.9  | 9.85            | 25.7       | 27.3     | 24.2  | 23.7   | 21.5      | 8.03     | 1     | 9.07         | -       |    |
| •     | :         | :     | :      | :            | :      | :        | :            | :       | :           | :      | :     | :     | :              | :     | :        | :       | •       | :                | :     | :               | :          | •        | •     | :      | :         | •        | •     | •            | •       |    |
| :     | :         | :     | :      | •            | :      | :        | :            | tast    | :           | :      | :     | t     | :              |       |          | •       | :       | :                | :     | •               | · ·        | :        | •     | •      | :         | •        | •     | •            | •       |    |
| :     | :         | :     | -      |              | :      | :        |              | August  |             | :      | :     | 02    |                |       |          |         |         |                  | :     |                 | 4 Nov      |          |       |        | _         |          | 9     | •            |         |    |
| 4-10  | 11-17     | 18-24 | 25-1   | 2-8          | 9-15   | 16-22    | 23-29        | 30- 5   | 6-12        | 13-19  | 20-26 | 27-2  | 3-9            | 10-16 | 17-23    | 24-30   | 1-7     | 8-14             | 15-21 | 22-28           | 29- 4      | 5-11     | 12-18 | 19-25  | 26- 2     | -        | 10-16 | 17-23        | 24-31   |    |
| June  | , I       | " 1   | .,     | July         | 33     | ,, 1     |              | ٠.<br>س | August      | "      | 51    | 34    | September 3- 9 | "     |          | 36      | October |                  | ,,    | **              | •          | November | 33    | 33     | "         | December | 99    | 33           | •       |    |
| 23    | <b>77</b> | 25    | 56     | 27           | 58     | 53       | 30           | 31      | 325         | <br>?? | 34    | 35    | 36             | 37    | 38       | 33      | 40      | 41               | 757   | <del>2</del> 2  | 7          | 45       | 97    | 47     | 48        | 49       | 20    | 51           | 52      |    |



Govt. Press 4383-1921-250 ex.



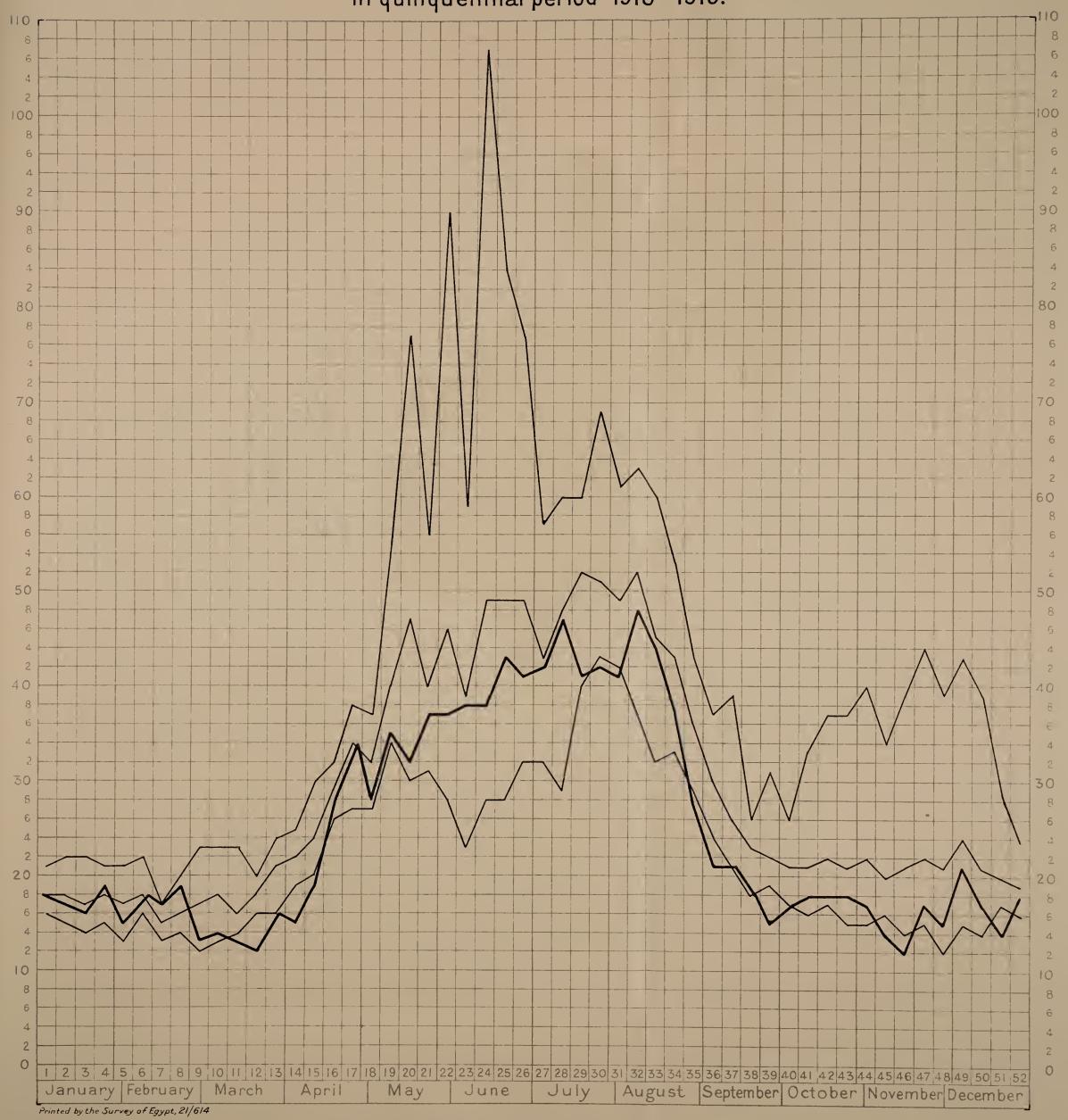
Cairo City weekly death-rates per 1000 Living in quinquennial period 1915-1919.



Weekly death-rates in 1920.



Cairo City Infantile Mortality Children 0-1 in quinquennial period 1915-1919.



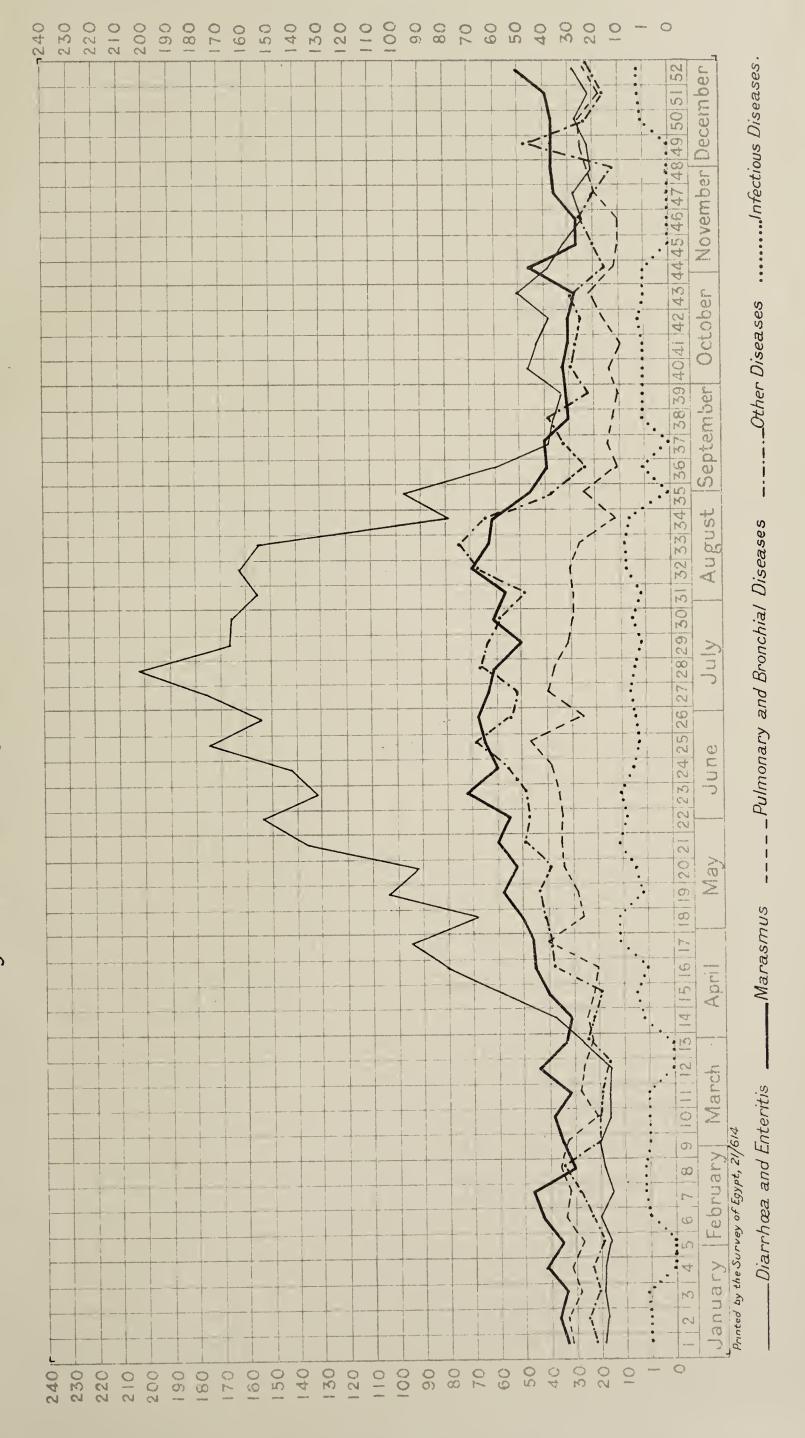
Maximum, Minimum and Mean of weekly death-rates per 100 births.

Weekly death-rates per 100 births for 1920.

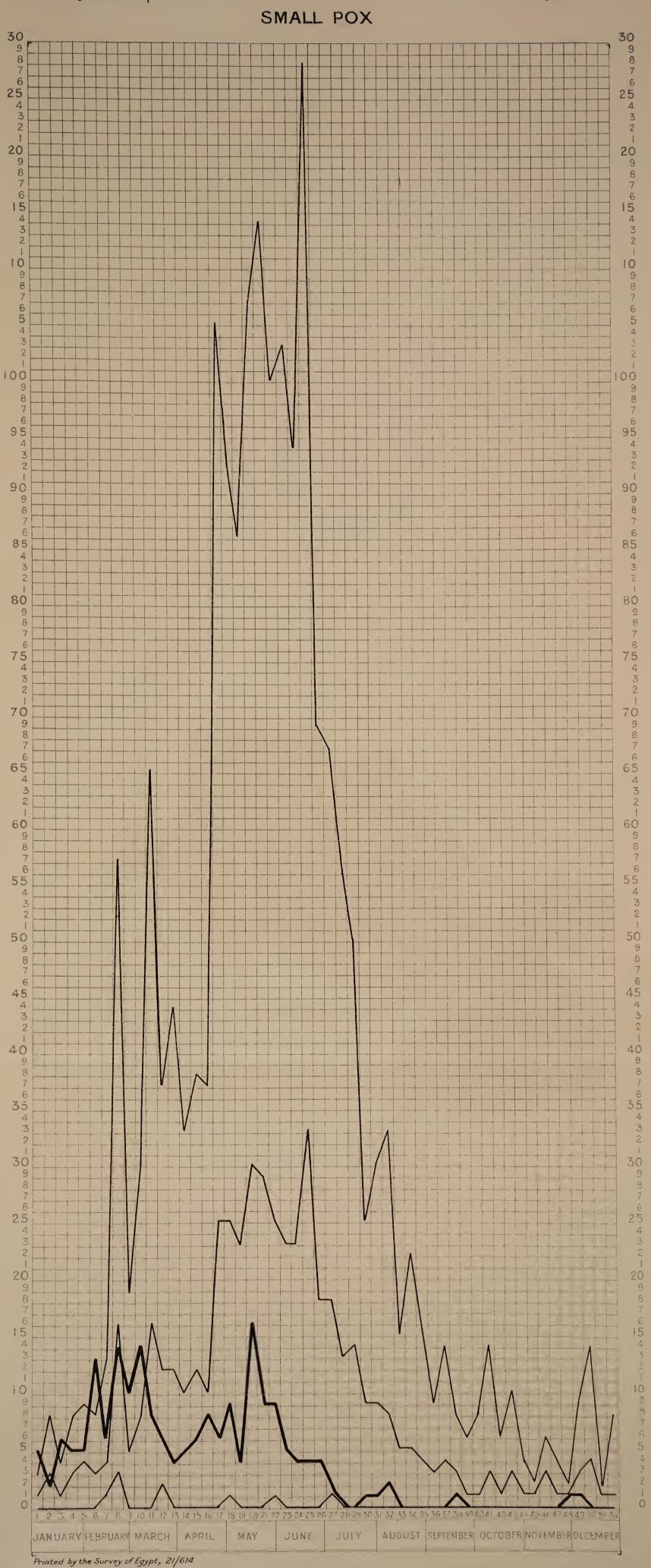


Cairo City Health Report 1920

Weekly Infantile Mortality Children 0-1 Year 1920, Cairo.



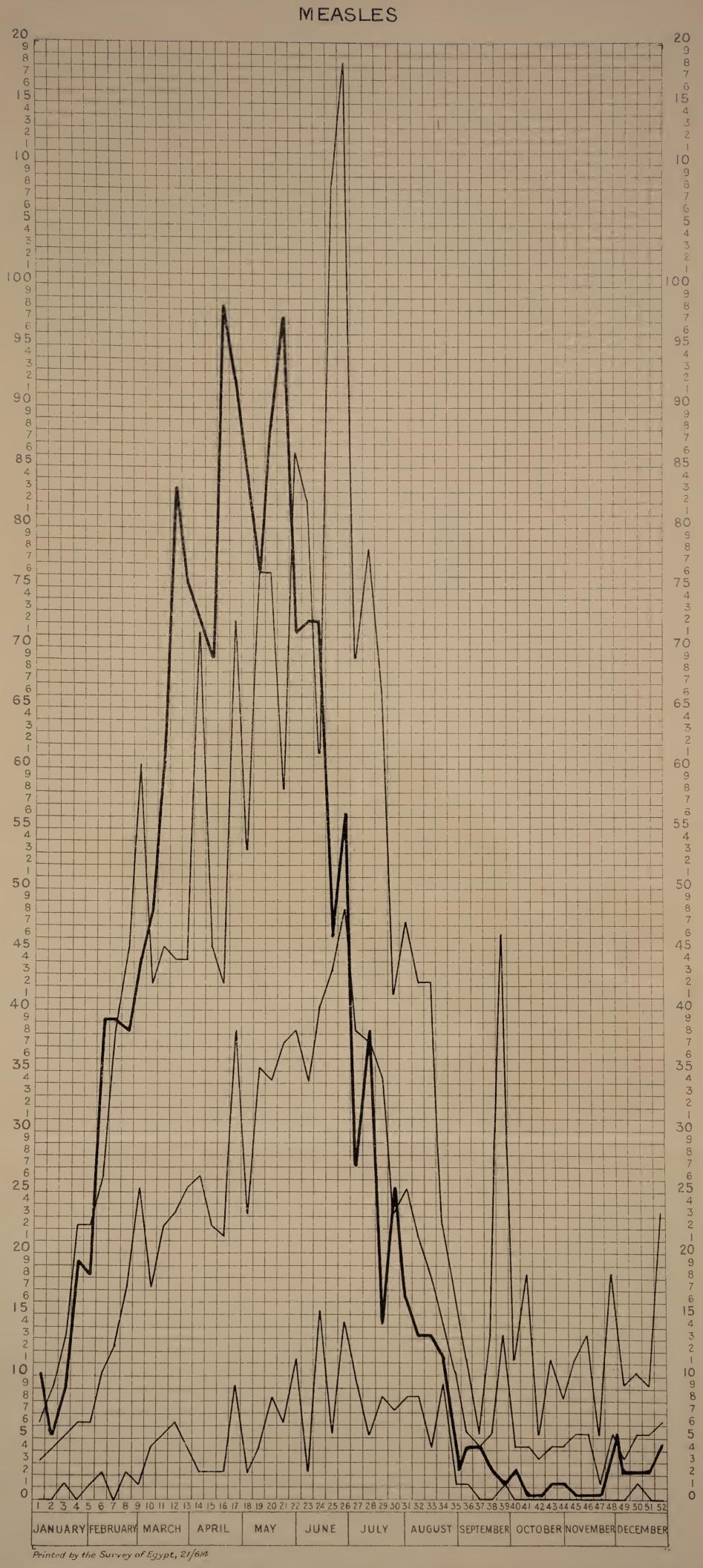




\_\_\_\_\_ Weekly Maximum, Minimum and Mean number of cases estimated per million of population 1915-1919.



f



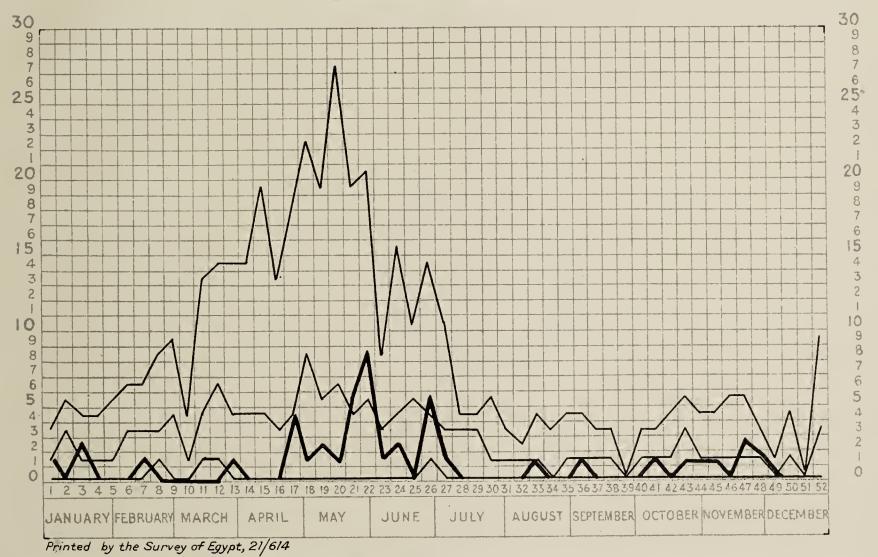
Weekly Maximum, Minimum and Mean number of cases estimated per million of population 1915-1919.



Cairo City Health Report

Chart VI.

#### SCARLET FEVER



\_\_\_\_\_Weekly Maximum, Minimum and Mean number of cases estimated per million of population 1915-1919.

Weekly Total of cases in 1920.



### Cairo City Health Report 1920 Chart VII. DIPHTHERIA 4 3 2 65 8 7 4 3 9 8 7 4 3 40 9 8 7 4 3 35 30 9 8 8 7 6 2 5 4 3 2 6 25 4 3 2 9 8 7 6 15 4 3 2 1 0 9 8 7 6 5 9 8 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

\_ Weekly Maximum, Minimum and Mean number of cases estimated per million of population 1915-1919,

JULY

AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER

JANUARY FEBRUARY MARCH

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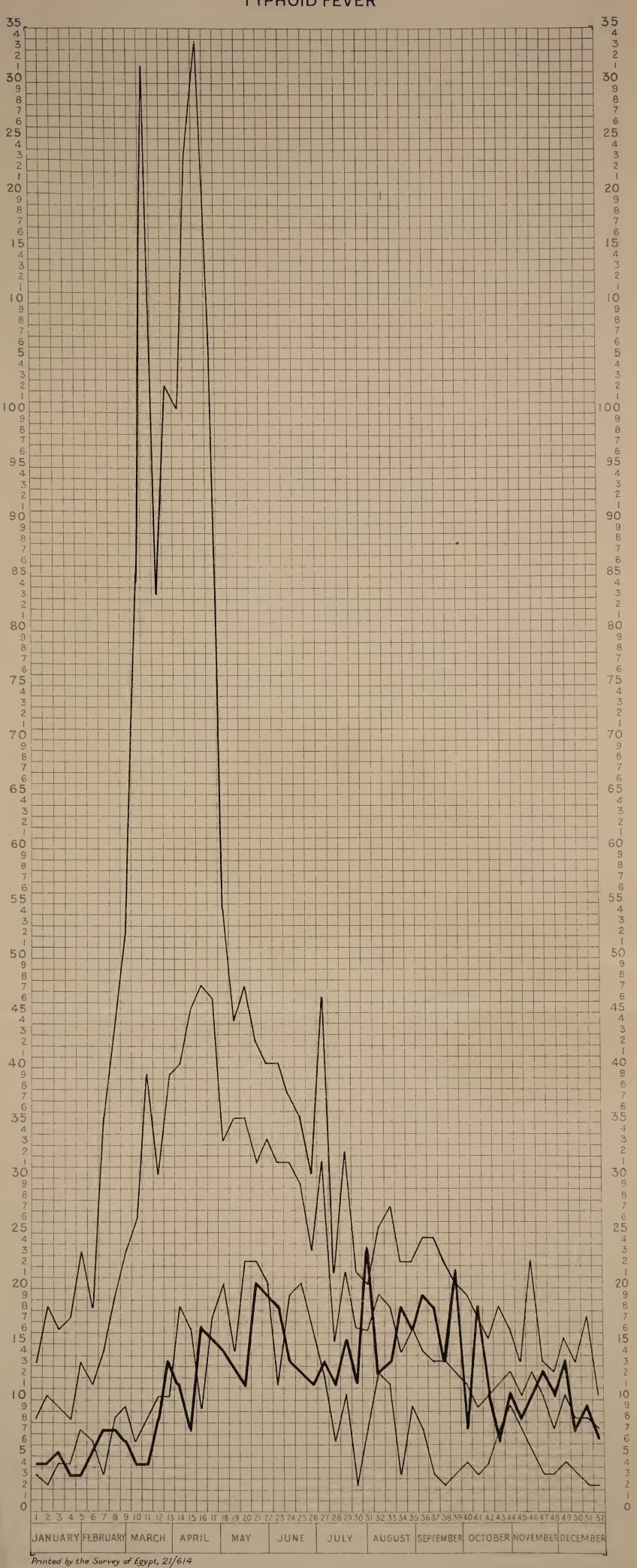
APRIL

MAY

JUNE



#### TYPHOID FEVER



\_\_\_ Weekly MaxImum, Minimum and Mean number of cases estimated per 500,000 of population 1915-1919.



JUNE

AUGUST SEPTEMBER DETTHER NOVEMBER DECEMBER

MARCH

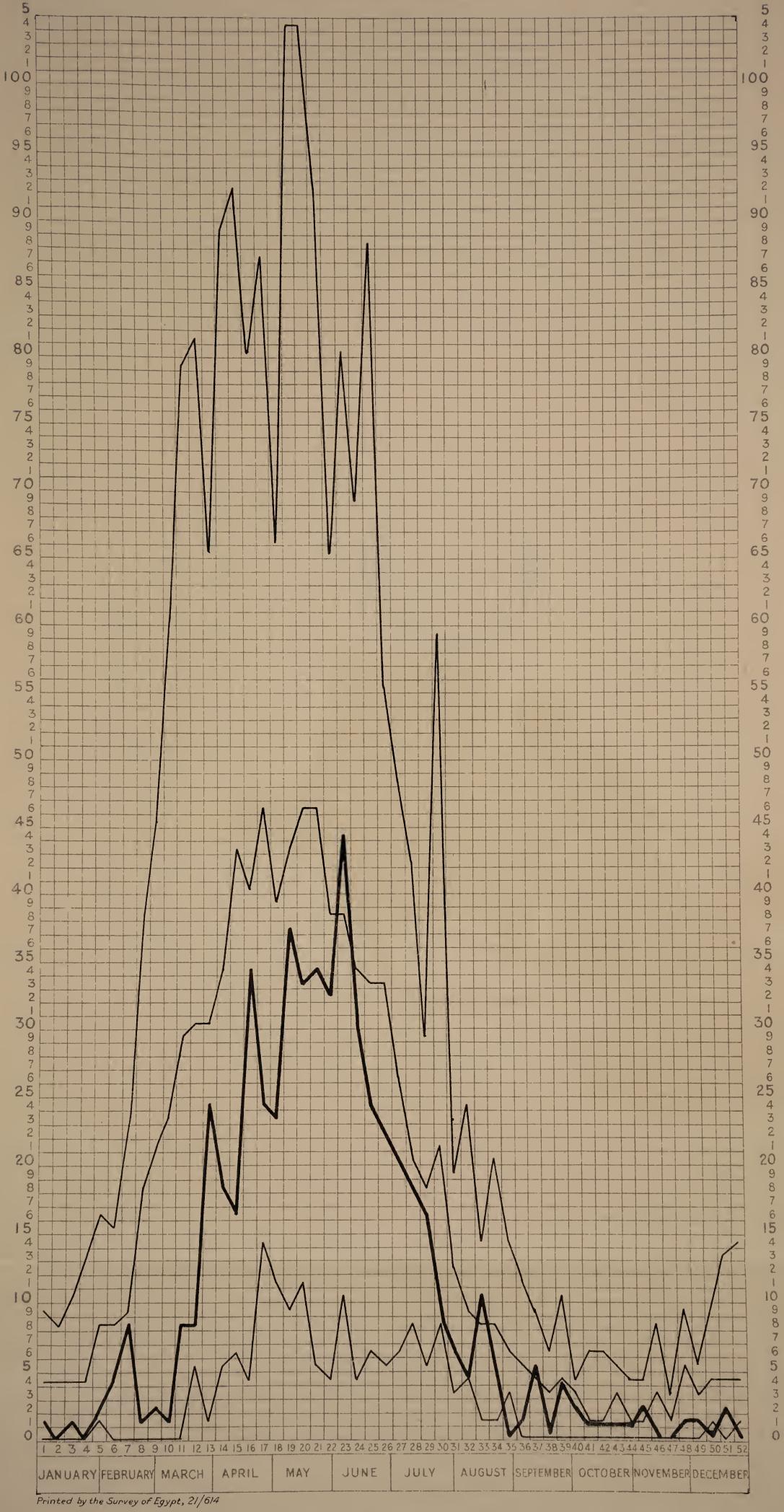
APRIL

JANUARY FEBRUARY



•

### RELAPSING FEVER



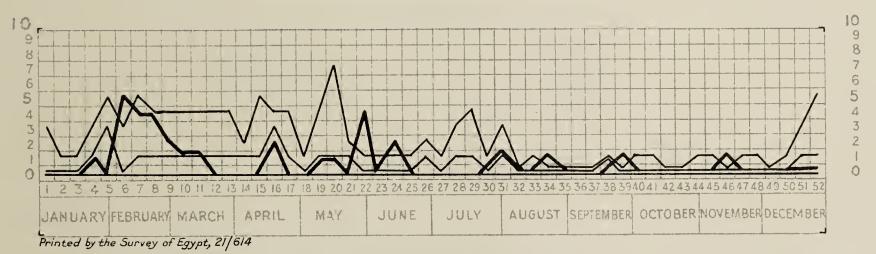
\_ Weekly Maximum, Minimum and Mean number of cases estimated per million of population 1915-1919.



Cairo City Health Report 1920

Chart XI.

#### CEREBRO-SPINAL FEVER

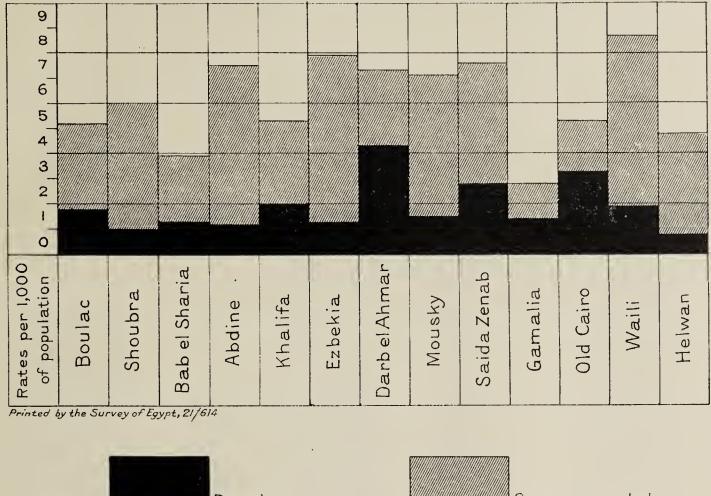


Weekly Maximum, Minimum and Mean number of cases estimated per million of population 1915-1919.

Weekly Total of cases in 1920.



### ZYMOTIC DISEASE CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1920 PER 1,000 OF POPULATION

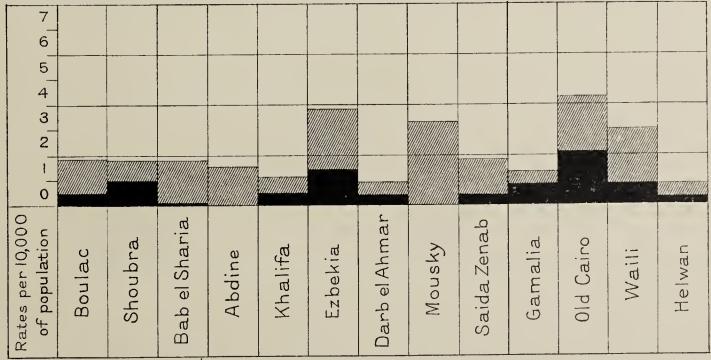


Deaths



Fig 2.

### SMALL POX CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1920 PER 10,000 OF POPULATION



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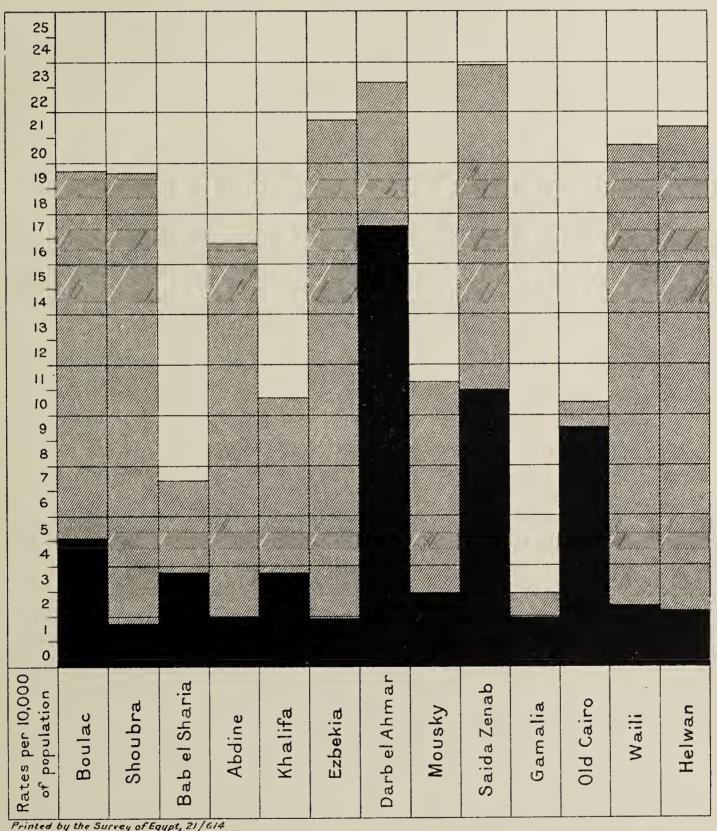




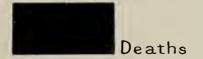


2 8

### MEASLES CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1920 PER 10,000 OF POPULATION



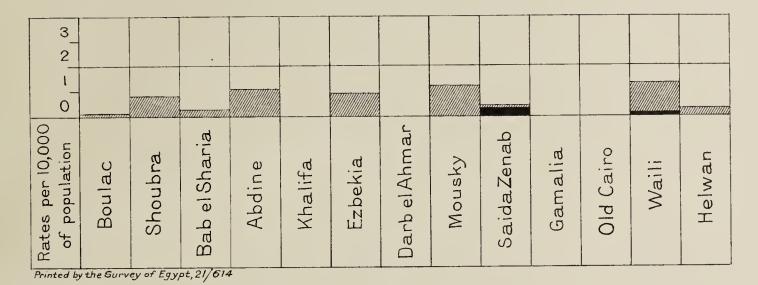
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## SCARLET FEVER CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1920 PER 10,000 OF POPULATION

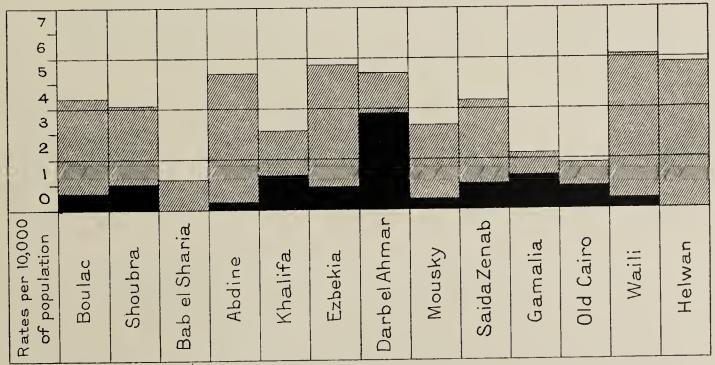


Deaths



Fig. 5.

## DIPHTHERIA CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1920 PER 10,000 OF POPULATION



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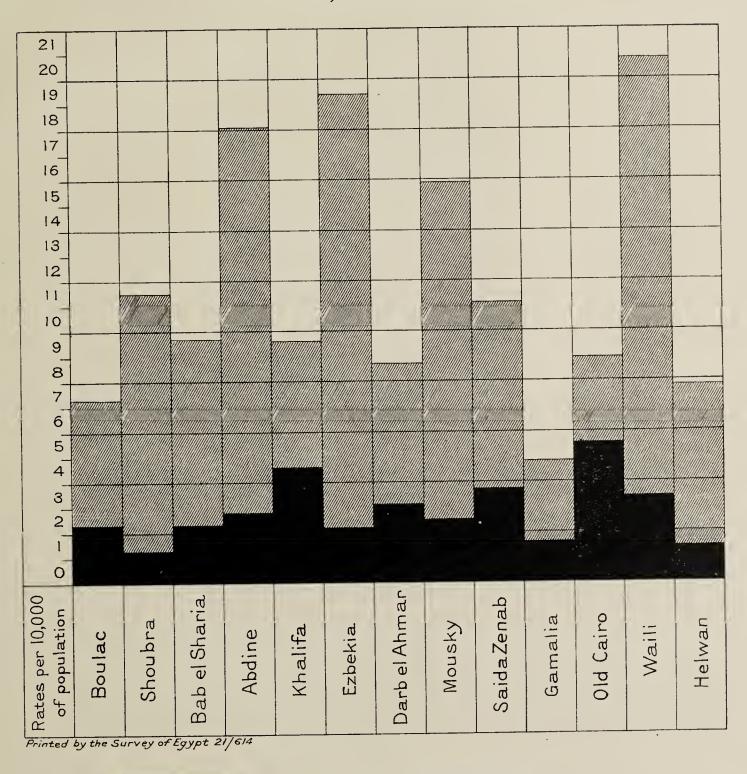






-

# TYPHOID FEVER CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1920 PER 10,000 OF POPULATION

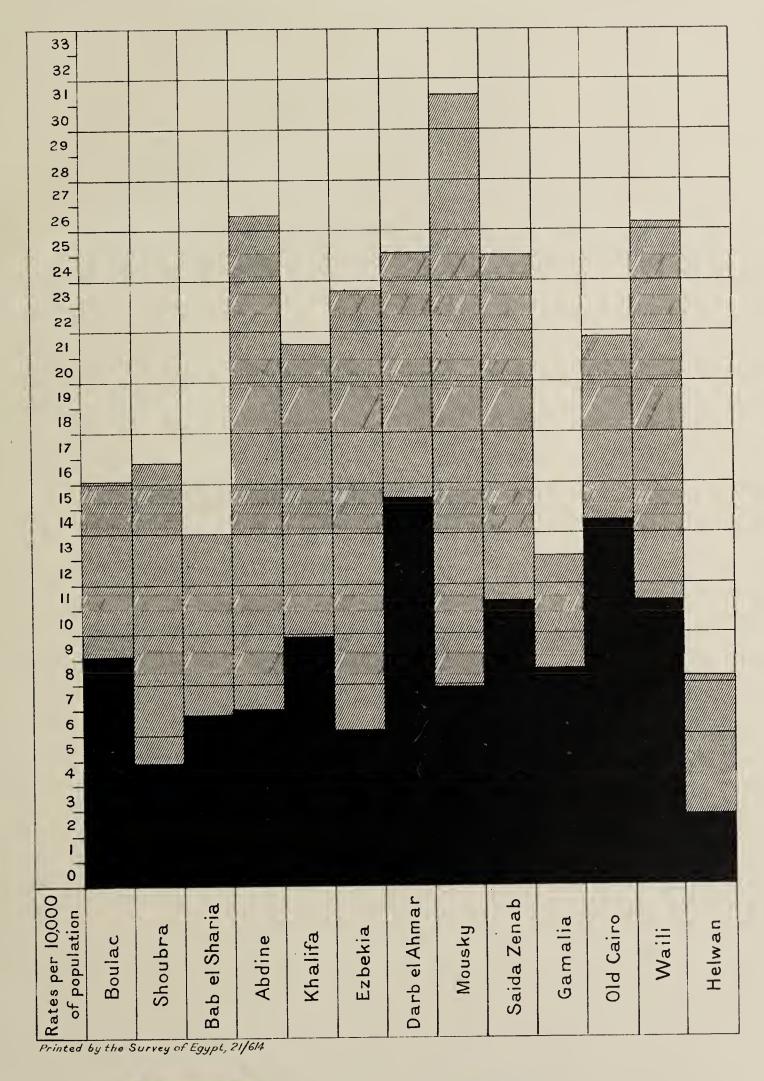








## TYPHUS FEVER CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1920 PER 10,000 OF POPULATION









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## RELAPSING FEVER CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1920 PER 10,000 OF POPULATION

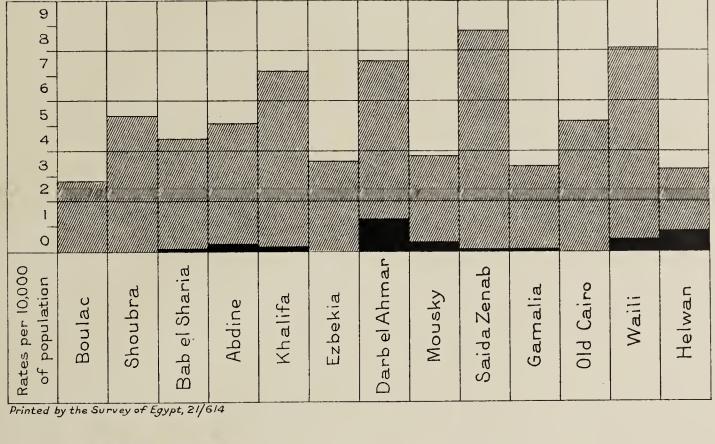
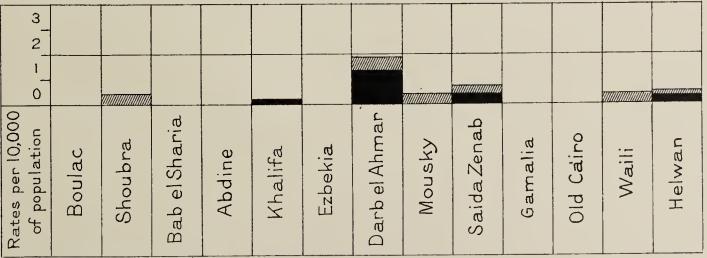






Fig. 9.

## CEREBRO-SPINAL FEVER CASE AND DEATH RATES IN CAIRO DISTRICTS IN 1920 PER 10,000 OF POPULATION



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(C.)





